

Indi Telecommunications Advisory Group

SUBMISSION

2021 Regional Telecommunications Review

The Indi Telecommunications Advisory Group, steered by Independent Federal Member for Indi Helen Haines MP, is a consultative committee comprising of local governments and regional stakeholders to develop community-led responses to telecommunication challenges in the region.

Representatives

Cate Kirk-Dufty
Derek Beautyman
Imogen Schifferle
Elaine Burridge
Steve Cooper
Robyn Guiney
Catherine Macmillan
Christopher Price
Janine Rolles
Peter Weeks
Guy Wilkinson

Organisations

Towong Shire
Mansfield Shire Council
City of Wodonga and Albury City
Alpine Shire Council
Strathbogie Shire Council
Regional Development Victoria
Benalla Rural City Council
Murrindindi Shire Council
Wangaratta City Council
Murrindindi Shire
Indigo Shire Council

Contents

Our Approach	3
Topography and Access	6
Resilience and Natural Disasters	7
Service Quality and Technology	9
Regional Development and Investment	11
Annex	
<i>The Ovens Murray Digital Plan</i>	15
<i>The Benalla Gigabit City Project</i>	20

Our Approach

The Indi Telecommunications Advisory Group ('ITAG') is pleased to make the following submission to the 2021 Regional Telecommunications Review ('the Review').

The Review is an opportunity for people living and working in North East Victoria to share their views and experiences using telecommunications services in their area, and to shape the regional communications policy agenda. In preparing this submission, ITAG gave particular consideration to the Terms of Reference of the Review, including:

- the effectiveness of current efforts to improve connectivity and digital inclusion in Indi
- insights from COVID-19 on the changing digital needs of our populace and region
- service reliability issues which impact Indi communities and options for mitigating them
- the role of emerging technologies in delivering telecommunications services in Indi
- ways of encouraging further investment in regional telecommunications in Indi
- the role of telecommunications in supporting our broader regional development goals
- ways to improve investment collaboration with government and industry in Indi
- consumer awareness and education regarding telecommunications in Indi

ITAG has also included information about the Ovens Murray Digital Plan, and an example of a recent local project in Benalla.

The Indi Electorate

The federal electorate of Indi extends across 29,187 square kilometres of Victoria's North East, from Corryong in the Upper Murray to Kinglake near Melbourne's outer north-eastern fringe.

Indi does not have a single dominant regional centre. Rather, it is characterised by diversity of population settlements, landscapes, land use and economic activity. Our communities include nine local governments – Alpine, Benalla, Indigo, Mansfield, Murrindindi, Strathbogie, Towong, Wangaratta, and Wodonga – and the unincorporated alpine areas of Falls Creek, Mount Hotham, Mount Buller, and Lake Mountain.

Tourism, forestry, viticulture, agriculture, timber production and processing, manufacturing, health and social services and countless small businesses are the lifeblood of our communities and economy.

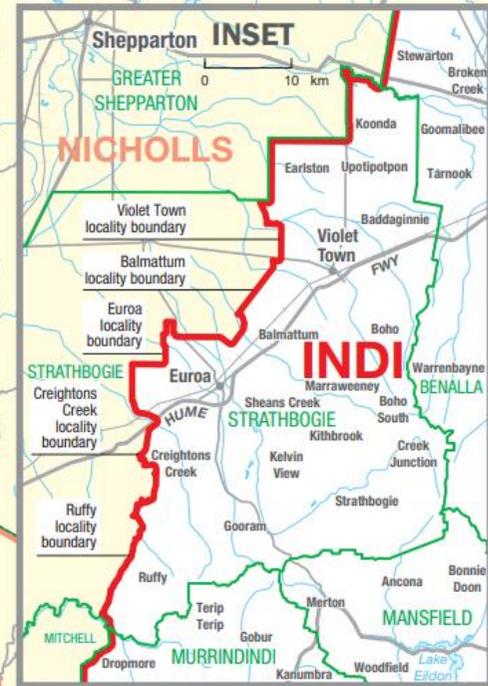
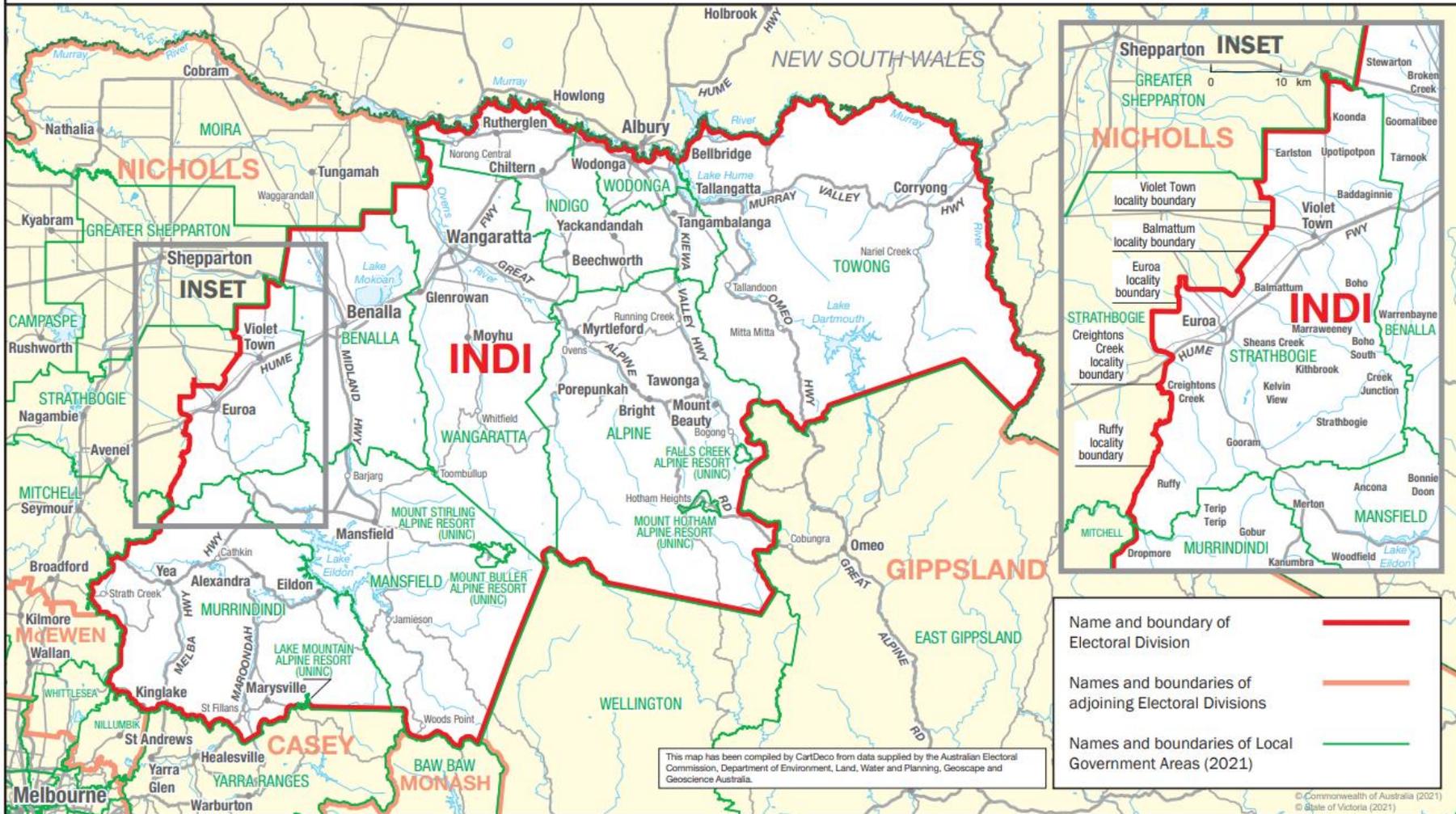


July 2021
**MAP OF COMMONWEALTH
 ELECTORAL DIVISION OF**

INDI



0 40 km



- Name and boundary of Electoral Division ———
- Names and boundaries of adjoining Electoral Divisions ———
- Names and boundaries of Local Government Areas (2021) ———

This map has been compiled by CartDeco from data supplied by the Australian Electoral Commission, Department of Environment, Land, Water and Planning, Geoscience and Geoscience Australia.

© Commonwealth of Australia (2021)
 © State of Victoria (2021)

Topography and Access

The unique topography of the electorate, which is characterised by diverse population settlements, landscapes, land use and economic activity, creates telecommunications access challenges that contributes to 'digital divide' inequalities:

As a result of the difficult terrain and regional location, Strathbogie Shire has suffered from inadequate mobile telephone services for many years and currently has in excess of 50 existing mobile telephone blackspots. In recent years there has been some improvements with extra mobile services being provided at Graytown, Creighton's Creek and Ruffy under the Federal Mobile Telephone Blackspot Program and most recently Avenel, Avenel South and Euroa North have received funding for upgrades under the Regional Connectivity Program. We continue to advocate for the more than 50 other sites across our municipality with priorities being the Boho /Boho South region and Mitchelton near Nagambie.

Strathbogie Shire Council

The sparsity of population needs to be accounted for when considering rural and regional applications. Telecommunication companies will always consider profitability over community needs so they need to be incentivised or compensated (long term) for support in these rural remote areas. For example, the Boorhaman area of the Rural City of Wangaratta has limited mobile and digital servicing, the topography is flat so it lends itself well to current technology, but it is not a heavily populated area hence not viable for Telco's investment.

Our mountainous topography and deep valleys will not provide for full reach in every area. This is where new technologies such as satellite, optic cable networks (VOIP) can provide an alternative for some areas. Alternatives to mobile towers needs to be encouraged. Satellite phone systems are currently available, although in some valleys can be still difficult to access, the costs of connecting to these services could be considered for subsidies for very remote areas as an alternative to traditional infrastructure.

...

Improved mapping showing detailed service connectivity would improve people's perception of what service is available. The traditional mapping available that provides a pinpoint location detailing that anywhere within a circle will have services does not take in the topography of the area and further adds to the angst from consumers. If there is a way for legislation to require Telco's to provide more accurate data mapping rather than desk top representations of signal, this may assist rural/regional residents or businesses make informed decisions.

Rural City of Wangaratta

In understanding the difficulties with topographical challenges and lightly populated areas, consideration must be given to the regional growth that is currently at one of its most remarkable peaks since the goldrush. It is likely, and been modelled to reflect a continuing trend, that these numbers will grow in the coming years.

For example, residents of the entire Great Dividing Range and its foothills find themselves disadvantaged, in contrast to their metropolitan neighbours, largely by the varied and challenging landscape. Given the variety of technologies available, this should not be the case.

There has been a noticeable stalling of necessary infrastructure rollouts, service level monitoring and communication to the broader Victorian community around this topic. This needs a refresh and restart to finalise these services across the board.

Mansfield Shire Council

Indigo Shire has a relatively small population which is dispersed over vast and variable geography, across multiple townships and villages. This socio-geographic profile, common to many regional areas, clearly poses a practical challenge to establishing adequate and equitable connectivity infrastructure in a traditional sense. For this reason, innovative solutions that can be deployed economically, and immediately are required to ensure the livelihood, sustainability, and safety of our population.

Indigo Shire Council

The hilly to mountainous topography of Towong Shire supports and underpins the high rainfall agricultural production characteristic of the area. Microclimates of higher rainfall are scattered across the Towong Shire, and when this rainfall falls on the highly fertile valley soils Towong Shire has areas of immense Agricultural potential. Agricultural producers and service providers recognise and understand their potential for growth; the innovators of Towong Shire have already incorporated telemetry in their productions systems but find the 21st Century tools are useless in a landscape still connected to the 20th Century.

Towong Shire Council

Resilience and Natural Disasters

Staying connected across vast distances is critical to the social and economic success of modern regional communities, allowing businesses to trade and communities to look after each other. The impact of the devastating Black Summer Bushfires on local telecommunications infrastructure, and its ability to keep communities connected in a crisis, makes this point clear:

Natural disasters and climate change will have an ongoing impact on bushfires, storms, and flood events across the north east. Consideration for current infrastructure in place is to ensure its reliability or ability to be re-established quickly in the event of a major natural disaster. This may be upgrading battery capacity, ability to bring in generators and assessing 'Daisy Chain' arrangements to ensure signal can reach the impacted areas. [Primary power lines usually are established to have an alternative link line so if the direct line goes down the power is redirected from an alternative route to minimise disruption.]

Emergency Management, provision for services that will support emergency management or distribute emergency management is usually in locations with low density populations or transient visitor populations such as camp sites in the mountain regions. Consideration for emergency services, which for Telco's are not a viable option, there should be subsidised program to the Telco's that invest in those remote areas over a substantial long term otherwise it is not viable for them to consider investing in towers/technology in those remote locations.

Rural City of Wangaratta

As well as the many gaps in the system there are also concerns that it can become overloaded during periods of high demand such as holidays with over 300,000 tourist visitations each year or during times of emergency such as bushfires and floods. These concerns regarding capacity and resilience are exacerbated by the unreliability of the municipality's power supply.

Strathbogie Shire Council

Bushfire season is merely months away, coinciding with a traditional peak tourism period that will be amplified by the likely lifting of COVID restrictions. Immediate, innovative solutions can help our businesses capitalise on these unique settings and offset some of the damage of the past two years; post bushfires, COVID and border closures. Immediate, innovative solutions can provide a level of safety to tens of thousands that is currently not available.

...

Consider the village of Stanley in Indigo Shire. Stanley has nearly four hundred residents and sits in an extremely high fire risk area with single road access. Whilst there are few main street businesses in town, many residents work from home, particularly during COVID. Mobile coverage maps indicate Stanley has adequate mobile coverage however the lived experience is a stark contradiction of that computer-generated assumption. The risk to Stanley and its residents during a significant local bushfire event is incomprehensible. The economic and social disadvantage caused by inadequate connectivity is inequitable and unjustifiable.

Please also consider Beechworth, a mere fifteen kilometres from Stanley and with a resident population of almost four thousand people. Similar to Stanley, Beechworth's topography classifies it as an extremely high fire risk town. Beechworth has only three road access points, one through Stanley and the other two major roads (Wangaratta Road and Wodonga Road) suffer considerable stretches of no mobile coverage. Beechworth's economy is heavily reliant on tourism and its population swells threefold in peak visitation periods. The digital connectivity capacity is so limited in Beechworth that EFTPOS and ATM facilities fail, even during medium visitation periods, prohibiting trade and negatively impacting visitor experiences and consequently Beechworth's long term destination brand credentials. Frighteningly, with bushfire season being a period of peak visitation, the consequences of Beechworth's inadequate connectivity for ten thousand or more souls could be catastrophic.

Indigo Shire Council

Recent emergencies within Victoria and interstate have highlighted the broken links "on the ground" that would be represented as successful coverage areas on a variety of service provider indicative maps. The user experience has now been further highlighted during the pandemic where many people regionally in otherwise "covered" areas, have little or no coverage whatsoever.

Mansfield Shire Council

Approximately 60% of Towong Shire is forested, therefore most of Towong Shire is defined within the Bushfire Management Overlay. Most residents of Towong Shire live and work near forested areas, which catalyses a deep awareness of the natural environment within most Towong Shire residents. Towong Shire residents are by their very nature resilient; this resilience is fostered and supported by communication and the capacity of residents to monitor and interpret information about their landscape and environment.

The modern world has created wonderful 21st Century tools to help us live better in our landscape; access to mobile phone applications which monitor, interpret and alert. Such applications are only effective if they can be accessed, and in most areas of Towong Shire these modern communications are undeliverable, therefore not used as tools of survival during natural disasters. The lack of access through poor mobile and Internet connectivity conveys huge risk to both Towong Shire resident and visitor.

Towong Shire Council

Service Quality and Technology

Major congestion issues, slower speeds and dropouts are common across mobile and NBN networks. Satellite and Fixed Wireless in many cases are the only services available but are often insufficient options. Regional communities often pay significant premiums to purchase high speed products, only to experience slow speeds and poor service quality. Like all regional communities, Indi deserves adequate and equitable infrastructure to enable us to conduct business, connect with our families, and access healthcare, education, and training.

There seems to be a disparity of the speeds reached for digital in metropolitan areas to regional areas. There may be a technical reason for this, however the perception is that rural areas are much slower and held back from accessing digital services that the cities take for granted. This is also true for connection costs in rural areas, particularly those on satellite services, who are paying significant fees for service connection but with strict limitations such as metering. COVID has shown that more so than ever that mobility of workforce requires access to digital and mobile services with high upload and download required for instant file transfer, alongside mobile connectivity. For rural areas to grow and increase their human capital we need to be able to provide the services that will allow for a highly mobile workforce.

A number of residential developers are not committing to install optic services to their estates, despite their proximity to connection points. This is leaving new residential housing with limited to no internet access or phone (land/mobile) access. Legislation could play a part in requiring residential and industrial developers to connect digital services to allocated blocks within an estate, where the ability to connect to optic services are nearby and available, making it a compulsory requirement for subdivision. It could also allow the government to provide financial incentives or support for these connections.

Businesses and residents also report that telecommunications providing services in the regions often fail to provide quick and easy connections and troubleshooting. Businesses have reported being without EFTPOS services for multiple days whilst they talk with their service provider. Expanding the technological capacity of business is stifled by low grade or intermittent broadband. Even the basics of using an EFTPOS machine is compromised in rural communities due to the lack of mobile connection, or excess demand for mobile services during peaks times such as events. This creates a cash society due to the unreliability to service card sales.

Rural City of Wangaratta

Beyond Stanley and Beechworth, our towns of Yackandandah, Chiltern, Rutherglen and the smaller villages like Kiewa, Tangambalanga, Barnawartha, and many more, are digitally disadvantaged and disconnected, which at the very least inhibits their social and economic optimisation and at worst, may jeopardise their safety and sustainability.

Traditional infrastructure may be cost prohibitive and any meaningful traditional infrastructure roll out may take generations to access under the population and financial based investment criteria that will continue to inhibit regional connectivity. We call on the committee to introduce innovative and effective alternative connectivity solutions to complement traditional solutions, immediately.

Indigo Shire Council

Congestion, slow-speeds, and dropouts commonly diminish quality of service for us. The 25 download and 5 upload speed is often not realised by Satellite or Fixed Wireless connections in the regions. The alternative of using 4G mobile signal also has connectivity issues. There is an over reliance on Satellite and Fixed Wireless connectivity in Strathbogie Shire which does not nearly meet the expectations expressed by the Minister.

Digital connectivity and capacity in Strathbogie Shire is predominantly reliant on either satellite or wireless technology with fibre only being available in two towns within the municipality, Euroa and Nagambie. This fibre footprint does not extend to all of these two towns and it seems that expansion of these fibre footprints will be reliant upon private development. There is also concern surrounding the digital access of Kestrel aviation adjacent to Mangalore airport which is the home base for the states aerial firefighting service and controls approximately 80 aircraft assets during the height of the fire season. Currently Kestrel is reliant upon a mobile telephone signal for access to data.

Many of our farmers are highly reliant on wireless/satellite technology that facilitates their ordering of farm supplies, crop planting and harvest and access to markets. In short, this infrastructure and services are needed for the running of a modern farm business. The situation is similar for other businesses in the municipality and unfortunately the limited capacity and range of the wireless/satellite technology is making it difficult for them to compete with other regions and in some cases internationally.

We have conducted extensive community consultation on this subject and have been advocating for improved connectivity and capacity for the region. This advocacy has included submissions to the House Joint Standing Committee on the NBN.

Strathbogie Shire Council

Most business owners surveyed by Towong Shire pay for an internet service to provide upload speed of 25Mbps, but experience 4 – 5 Mbps, and try to manage their cloud-based business through 3G. Some businesses have resorted to access the internet through three concurrent methods, with little improvement in connectivity and operation, and struggle with mobile access (i.e. still have to walk the EFTPOS machine to the window or outside to take customer payment). Towong Shire needs the service provided to match the coverage maps and for Towong Shire ratepayers to access 5G in our major towns and 4G everywhere else.

In the same survey, Towong Shire businesses were asked about their plans for the short and medium term and would their current Internet and mobile service support their business plans. Most businesses answered no. Most businesses expressed frustration that they pay thousands of dollars per year for access to cloud-based products but are unable to use these technologies and tools within their business structure.

Towong Shire Council

Network issues are not always reported which can hamper improvements:

Rural and regional areas often report slow, outages or non-responsive services. Much of which goes unreported as many people do not understand that continuous reporting of issues highlights a problem. There is an opportunity for greater education within the community to report issues direct with Telcos, or to develop other ways to report so that we capture a regular assessment of services.

Rural City of Wangaratta

Regional Development and Investment

ITAG welcomes, in principle, initiatives to improve regional access such as the NBN Regional Co-Investment Fund. Some local governments have already expressed interest in the scheme:

We have conducted ongoing negotiations with representatives from NBN and have been encouraged to make submissions for funding from the NBN's Regional Co-investment fund.

This funding scheme requires confidentiality agreement prior to the release of build costs for projects which include the amount of funding that NBN is prepared to provide for each project. It is a requirement that Council then either co-fund the remaining amount or seek funding from alternative sources. The conditions of the funding are such that each project must show a threshold commercial return to NBN and NBN retain complete control of the new infrastructure despite the co-investment from other organisations or levels of government.

Strathbogrie Shire has made submissions for build costs for projects at Violet Town and Avenel.

Strathbogrie Shire Council

However there are serious concerns that the design of the NBN Regional Co-Investment Fund is simply not inclusive and puts smaller local governments at a significant disadvantage:

We note the recent announcement from federal government that the NBN "build" is complete. There are concerns that local government is now being required to accept responsibility for the provision of digital infrastructure, something which is traditionally outside its responsibilities.

Despite the claim by the Government that the build is "complete", it appears there is little or no provision being made for future growth or economic development of these regions through the provision of extra infrastructure and coverage unless other forms of funding are found. With the lack of fibre to most of the LGA, residents and businesses are required to seek connection through either wireless or satellite technology (both of which add cost and in some cases are simply unaffordable, placing our residents at a disadvantage in both home schooling and remote working).

Smaller shires such as Strathbogie are at a disadvantage for a number of reasons. They are “cash and resource poor” and as such it is difficult for them to fund or leverage funding from other sources for “co-investment” which creates a barrier to access funding in many grant schemes. As larger LGA’s and regional centres are able to develop their digital infrastructure smaller LGA’s in effect “go backwards” in their ability to provide services and therefore as a prospective place of investment for industry and residents.

Current levels of connectivity and capacity of both mobile telecommunications services and digital infrastructure are inadequate to meet Strathbogie Shire’s current needs. Whilst there has been some progress in the mobile telecommunications field, improvements in digital connectivity are still at the negotiation stage and reliant upon Strathbogie Shire seeking funding to co-invest with NBN co. If successful the result will be co-investment in infrastructure which will be completely owned by NBN co, a government monopoly and will return a commercial return to that organisation.

Strathbogie Shire Council

In other funding programs, poor communication from retail partners totally hampered applications:

Poor connectivity has been a feature of our key agricultural villages at Goorambat, Devenish, Tatong and Lurg. Liaison with Telstra around potential solutions has been to no avail.

So when NEOEN was approved to build one of the largest solar farms in the southern hemisphere at Goorambat (commencing construction in 2022), the community, NEOEN and Council rallied together to support the Round 5A 2020 Blackspot Funding round.

Applications however had to be submitted by the retailer not the community – and after many meetings, we thought Telstra was on board with our application, especially after NEOEN agreed to contribute up to \$100,000 to ensure a Tower could be built at Goorambat. However we learnt after the funding round closed that Telstra had not put our application up as one their preferred locations as “their mapping indicated the connectivity issues were not bad enough”. The lived experience of locals however, as evidenced by dozens of letters of support and hundreds of signatures on petitions, would prove otherwise.

And so we have gone back to the drawing board yet again and the community plus a major business is left wondering how they will secure the basic improvements required for an essential service and how long until it is forthcoming.

Benalla Rural City

ITAG also notes the importance of embedding improvements to telecommunications within local economic development opportunities and infrastructure planning:

Strathbogie Shire with its proximity to Melbourne, larger regional centres such as Shepparton and its location at the apex of two major road and rail corridors, is well-placed to attract both residential and commercial investment. This investment will continue to be inhibited if greater provision is not made for digital and mobile communications access.

The recent surge of residential and commercial investment in regional Victoria makes the provision of mobile telephone and digital infrastructure an imperative if the regions are to be attractive investment prospects. We urge that the government give greater priority to our concerns and provide equity to small local government areas by ensuring access to reliable high-capacity and affordable digital and telecommunications infrastructure.

Strathbogie Shire Council

Opportunities for increased use of technological monitoring, manufacturing and IoT in agriculture are underutilised. A survey is currently underway by Startup Shakeup (North East Victoria's Innovation Network) is reviewing the digital literacy of small to medium sized businesses. The survey assumes that lack of connectivity is part of the reason why businesses have not embraced new technology. More will be available once the survey is completed.

Rural City of Wangaratta

The Mansfield Station Precinct presents a great opportunity to develop a vibrant hub for the entry to Mansfield. The Precinct plans include Community Hub, Art Gallery, Retail and Service Business spaces to complement The Great Victorian Rail Trail and Tourism generally, Historical Displays and Function and Event Spaces that will all require internet and mobile phone service coverage and high-capacity delivery capability.

The development of Lakins Industrial Estate, incorporating smart renewable features including conjunctional renewable energy generation and distribution, will also require high capacity broadband and clear mobile coverage to ensure that the attraction and development of complimentary industrial processing and manufacturing facilities, provides employment growth and further diversification of the Shire's growing economy.

Mansfield Shire Council

Educational service provision, at all levels, is growing in the regions, health services are becoming more reliant on technological means to diagnose and treat regional patients, it is time that the technological communications service levels, necessary for the sustaining of regional communities and their advancement, were brought in line with the metropolitan experience. Locally, Mansfield Adult Continuing Education (MACE) joins Country Universities Centre - Ovens Murray to deliver modern study space, areas where students can gather and bond with room for tutorials and meetings. Students will have access to campus-level technology, facilities, tutors, supportive administrative and academic staff, and a network of fellow students. If we can provide internet capacity, consistently, we will be able to provide better quality education services.

Mansfield Shire Council

The Review must address (a) the inaccuracy of the mapping which Telcos use versus lived experience, (b) the power Telecommunications retailers hold over communities when applying for funding (and incentives to encourage support of localities if the population is dispersed), (c) acknowledgement – in both word and deed – that communications is an essential service, and (d) adequate immediate backup in the case of natural disasters such as bushfires, floods (and earthquakes now too!) as a pre-requisite for any retailers providing a service.

We would also like the Review to address alternative options such as community broadband networks, in order to give some power and control back to the community which relies on the service. Flipping the model with communities interviewing potential retailers for what they can offer may also help to even the power balance. Utilising Business partnerships model to aggregate a community broadband service in order to meet the needs of that community and thereby provide a more equitable, reliable and cost effective communications service for everyone – no matter where they live.”

Benalla Rural City

Requiring regional businesses to bear the costs of poor infrastructure and connection access can also hamper economic prosperity and small business viability:

Hybrid Ag is a supplier of high-quality prescription blended soil and nutrient solutions. They offer bespoke soil treatments which are manufactured from locally sourced raw products and distributed across Australia. The business is located in an industrial estate which is located to the north of Wangaratta, just 7km from the CBD. Hybrid Ag are about to embark on an expansion to a 90-acre property nearby to provide for increased capacity. The business was formerly connected to Wireless Broadband however the signal was not sufficient to provide for Zoom meetings and the connection would continuously disconnect mid call.

Lack of ability to send and receive large technical files also reduced the ability of the business to function efficiently. Frustration due to the loss to the business led Hybrid Ag to follow up with their service providers with no solution available. Telco’s advised that there were no optic services nearby to connect to. Further investigation identified optic cable through Telstra nearby and they have now installed a \$50,000 private optic fibre network to the industrial estate that only their business can connect to.

Unfortunately with the private investment this now leaves the business with a significant financial investment in a connective service that they are unable to share with neighbouring businesses and share the costs of the original installation. There is an opportunity to ensure the guidelines in future provide for business or private investment into connectivity rather than relying on Telco’s or NBN Co to support rural services.

Rural City of Wangaratta

Annex A The Ovens Murray Digital Plan

ITAG would also like the Review to note the [Ovens Murray Digital Plan](#): an evidence-based, place-based analysis of the supply of and demand for digital services and skills in the region:

The Ovens Murray Digital Plan was developed with extensive input from regional stakeholders and identifies the region's digital strengths, issues and needs, as well as a set of regional priority actions to improve:

- *digital awareness*
- *digital skills*
- *digital connectivity*
- *digital data use*
- *digital governance.*

The Ovens Murray Digital Plan comprises:

- *Part 1: Regional Context and priorities [\[link\]](#)*
- *Part 2: Data collection findings and analysis [\[link\]](#)*

*The digital plan highlights Ovens Murray region as having one of the lowest levels of digital inclusion in Victoria on measures of access, affordability, and ability (Australian Digital Inclusion Index - ADII). **The digital plan also highlights the importance of access to high functioning digital technology infrastructure and services as an essential requirement for 21st century liveability and business operations.** Connectivity development priorities outlined in the digital plan are:*

- *Reliability, capacity and coverage of NBN fixed broadband services, including business-grade and high-capacity services, to meet resident, business and service provider needs.*
- *Mobile coverage in priority blackspot areas and locations with poor/unreliable coverage, with consideration to isolated communities, high risk bushfire areas and tourism.*
- *Affordable options to boost mobile signal and increase WiFi backhaul in locations where services such as eftpos, GPS navigation and mobile data are unavailable during temporary periods of peak demand such as tourist seasons and events.*
- *Removal of technical barriers to the availability of IoT networks, particularly in areas where primary producers have potential to gain significant benefit.*
- *Access to free public and site-specific WiFi in regional centres, disadvantaged communities and tourism locations, as well as extending access to multipurpose digital hubs as enabling infrastructure for a range of access, affordability and technical support needs.*
- *Ability to leverage available government assets and secure cost-effective customised solutions by using existing infrastructure.*
- *System resilience in 'high visitation-high risk' locations such as Alpine Resorts.*
- *Awareness of customised solutions for people whose connectivity problems are unlikely to be resolved by mainstream system improvements.*
- *Continuing access to technical supply and demand maps and data, with ongoing quality improvements that ensure greater alignment with 'lived experience'.*

Stakeholders in the Ovens Murray region are now using the digital plan to guide action on priorities and inform advocacy to all levels of government and industry for improvements to the region's digital infrastructure and digital engagement.

[Ovens Murray Digital Plan, Part 1 - Regional context and priorities](#) 

[Ovens Murray Digital Plan, Part 2 - Data collection findings and analysis](#) 

Establishing Ovens Murray as a regional leader in digital innovation and entrepreneurship is a high priority for the region. The Ovens Murray region is building on a strong foundation, being home to the [Startup Shakeup](#) innovation ecosystem collaboration and the [Australian Centre for Rural Entrepreneurship](#) (ACRE). In addition, the region's lifestyle advantages are attracting innovators from diverse backgrounds who are facilitating regional businesses, entrepreneurial collaborations and learning opportunities through digital technology. Consequently, the region has actively supported a number of digital innovation initiatives which are described below.

Digital Innovation and Entrepreneurship Stories

The Ovens Murray Regional Partnership has showcased locally-based national and international digital success stories through eight multi-media case studies that highlight the importance of high quality digital access to people in the region who are using technology to facilitate community connection, enable work-life balance and provide economic and social benefit through jobs, training and improved services.

A short introductory video and each of the eight stories can be accessed on the [Ovens Murray Regional Partnership](#) website or via links below:

- *Ovens Murray Digital Innovation: Introductory Video* [\[link\]](#)
- *Ovens Murray Digital Innovation Videos and Printable Stories* [\[link\]](#)

Digital Hubs

Regional experience has highlighted the importance of multipurpose digital hubs as enabling infrastructure for digital access and effective digital participation. Victorian Government support has been provided to establish the region's current two digital hubs:

- *Wangaratta Digital Hub* [\[link\]](#)
- *Wodonga Business Innovation Hub – Wodonga Innovation Project* [\[link\]](#)

Both initiatives are three-year pilot projects requiring the development of financially self-sustaining business models for ongoing operation.

The Wodonga Project has been operating an online 'virtual' hub over the past two years and proposes to establish a 'physical' business innovation space in the new Wodonga Library, with support from Wodonga City Council.

The Wangaratta Digital Hub operates from premises adjacent to the Wangaratta Library, but to date has been unable to secure longer term funding support. The hub has a strong community digital inclusion focus with a demonstrated commitment to assisting the most digitally excluded community members, including:

- *people in older age groups with low or no digital skills*
- *people experiencing socio-economic disadvantage*
- *people with disabilities*
- *people from culturally and linguistically diverse (CALD) backgrounds*
- *people with complex or chronic health problems*
- *people without access to digital technology equipment and connectivity.*

The capacity for digital hubs to be financially self-sustaining has been significantly impacted by COVID-19 pandemic restrictions on physical hub operation and establishment of regular income generation streams.

Experience of digital hub operation in Ovens Murray and other Victorian regions has highlighted the importance of co-location with other community facilities and secure ongoing financial support, most often (but not always) from local government as the lead and often in partnership with local business and post-secondary education providers such as TAFEs and universities. Currently, if local long-term digital hub funding partners cannot be identified their financial sustainability and ongoing operation is at risk.

As businesses and community members are required to move increasingly online to meet their everyday needs and regional economies become more dependent on digital solutions, digital hubs are playing a greater role in securing community benefit from significant government investment in telecommunications infrastructure and are likely to require continued funding support from government.

Regional Digital Innovation Projects

With support from the Victorian Government’s Regional Digital Fund, the Ovens Murray region has implemented a number of smaller scale digital innovation projects:

- ***Benalla 10 Gigabit City (Benalla Rural City Council):*** Ultra high speed community broadband network for local business by accessing the VicTrack fibre network.
- ***Connecting Bonegilla (Wodonga City Council):*** WiFi network and emergency warning system to support visitation at the Bonegilla Migrant Experience.
- ***Animated Training Videos for an All Abilities Workforce (Wangaratta Digital Hub and Merriwa Industries):*** On the job digital tech skills training for young people with disabilities.
- ***iManage My Health (Wangaratta Digital Hub and Northeast Health Wangaratta):*** Upskilling and confidence building to enable regional health service patients to use digital technology to self-manage health conditions.
- ***Buy from North East Vic Online Business Support (Startup Shakeup):*** Targeted small business digital engagement and upskilling through a ‘buy local’ place-based eCommerce collaboration between local government and small and medium enterprises (SMEs) in the region’s larger centres and smaller towns.
- ***Understanding Regional Digital Capacity (Startup Shakeup):*** Identify digital capability strengths and shortfalls in regional SMEs using customised ADII research tools and other information collection methods.
- ***Accelerating Health Outcomes Through Digital Innovation (Futureye):*** Develop a regional health innovation roadmap to guide regional eHealth technology and telehealth uptake.

Accelerating Health Through Digital Innovation Project

In early 2021, the Ovens Murray Regional Partnership with support from the Department of Jobs, Precincts and Regions (DJPR) and the Ovens Murray Digital Futures Coordination Group commissioned research into the potential for digital health uptake in the Ovens Murray region.

The resulting report to be released shortly, makes recommendations on how the Ovens Murray region can best orient its next stage efforts to build region-wide capacity in digital health. It centres around the question, “How can Ovens Murray accelerate its uptake of digital health solutions – which solutions show potential and how can these be best progressed?”

The project builds upon the strong foundations of past and current effort and investment across Ovens Murray around strengthening digital capacity, including in the health arena.

The project found that, while pockets of system readiness indicate underlying potential for the region’s digital health uptake, its ability to accelerate appears constrained by gaps in access, affordability, ability and mindset as well as issues in the health system’s digital capacity which need to be addressed in order to accelerate regional health outcomes (refer diagram next page).

In looking ahead, the health innovation project identified the importance of building connections between the Ovens Murray and businesses and governments beyond the region. This is to ensure the digital health investments accelerate not just health outcomes but also an uplift in economic job growth, social and cultural cohesion and inclusion and comparative advantage positioning in attracting and retaining talent.

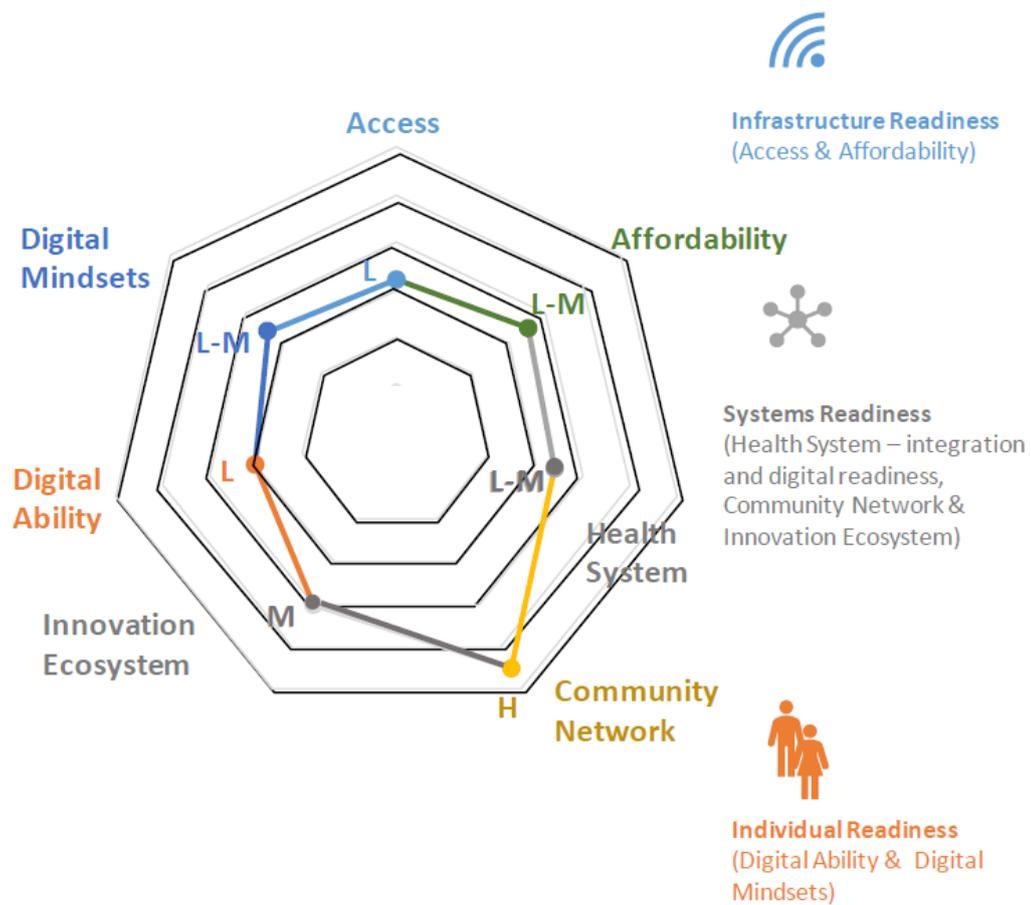
Other Regional Digital Innovation Initiatives

The Ovens Murray Digital Futures Coordination Group, with members from Local, State and Commonwealth governments, telco carriers and representatives from education, health, tourism business and community sectors, was established to assist implementation of the region’s digital plan. Other current initiatives that will support implementation of the Ovens Murray Digital Plan and inform future development of regional telecommunications connectivity, include:

- *NSW / Victoria Border Region Data Centre*
- *Ovens Murray Local Government Micro-Data Centre Pilot Project*
- *Ovens Murray Regional Partnership Digital Infrastructure Project Pipeline Development (proposed Ovens Murray Regional Partnership project)*
- *Mobile and Internet Communications Strategy – Alpine Shire / Towong Shire / Alpine Resorts (bushfire recovery project)*
- *Wines of the King Valley IoT Smoke Sensor Network (bushfire recovery project).*

Ovens Murray at a glance – summary insights

Source: Ovens Murray Digital Health Accelerator Roadmap Final Report (2021)



Annex B The Benalla Gigabit City Project

The Benalla Gigabit City project will research the design and infrastructure requirements to implement a superfast Gigabit community broadband network in Benalla Rural City.

The trial will test the private system at up to 10 locations in order to demonstrate what is possible for a range of local industries, including health, manufacturing, the arts, education and hospitality/retail.

1. The trial will lay the foundations for a broader rollout by providing evidence by:
 - a. Educating industry about how superfast internet can assist to improve current productivity and for the future of work
 - b. Surveying business about their current internet experience and usage
 - c. Secure the interest of key anchor tenants for a 10Gig network in the future, which would help to offset the costs for 1Gig options for smaller businesses

2. The trial will provide a business case and estimate of capital costs required to implement a more expansive Gigabit network for Phase 2 when we will apply for funding the 'shovel ready' business case to implement permanent infrastructure across Benalla Rural City CBD. This will include:
 - Potential upgrades required to achieve the vision of superfast internet (commercial versus community broadband options)
 - Estimates of the use/uptake based on improved connectivity by businesses. (This will be achieved by surveys, interviews, modelling and desktop research of relevant case studies).
 - Infrastructure options (design, reach, cost, deployment)
 - Commercial Strategy (anchor tenant commitments, proposed tariffs)
 - Demand analysis – the number and location of businesses and government agencies currently using internet services, including WIFI and smart sensor applications for community use which could leverage the proposed network so it is affordable for all
 - Governance (including how the community model will work, who will undertake the ongoing work and their experience and track record)
 - Risk analysis

The trial is a feasibility in action study to test the most suitable options for business grade community broadband for Benalla which is:

- Reliable and cost effective
- Offers superfast upload and download speeds via a clean, low latency connection at a competitive price point.

Benalla will be leading the way in regional digital inclusion, innovation and entrepreneurship with this trial. The 10Gb network is aimed at connecting people, attracting talent and new industries and, encouraging innovation and job growth for a strong post COVID recovery.

The trial will be installed and run from August to December 2021.

Long Term Vision

With a 10Gb community broadband network it will enable Benalla businesses to:

- have dedicated access to the latest business communications and data services at low cost
- improve productivity and operational efficiencies
- be able to create contemporary, flexible and innovative workplaces
- attract and retain quality staff
- attract and retain businesses in the CBD, attract major industries to the Industrial estate and other key locations
- attract Innovation, co-working and Fab Labs
- have the ability to quickly and easily export services to the world, expanding opportunities for global growth while living and working in North East Victoria
- gain a distinct advantage over their competitors elsewhere who don't have access to these speeds
- have the opportunity for exclusive access and connectivity to other CBD based businesses for collaborations in the future



INDI TELECOMMUNICATIONS ADVISORY GROUP

2021 Regional Telecommunications Review Submission