30 September 2021

The Hon Luke Hartsuyker MP
2021 Regional Telecommunications Review Chair
Department of Infrastructure, Transport, Regional Development and Communications

Via email: secretariat@rtirc.gov.au

Submission to the 2021 Regional Telecommunications Review

Dear Panel

Council is pleased to provide a formal submission to the 2021 Regional Telecommunications Review. Council appreciates the opportunity to provide input into this important topic, which has wide-reaching economic and social implications across regional Australia.

The Bundaberg Region is a major commerce hub within the Wide Bay Burnett Region, with pillar industries that include agriculture, healthcare, and manufacturing. A strong and diversified economy based on these and other industry sectors provide the region with comparative advantage and an ideal platform for innovation and growth, particularly in light of a growing population shift from major metropolitan areas to the regions.

Improved regional telecommunications underpins core elements of Council's Corporate Plan 2021-2026, which emphasises a strategic approach to delivering connected and leveraged infrastructure that facilitates catalytic projects. To better understand opportunities and constraints in relation to telecoms in the Bundaberg region, Council commissioned a strategic analysis as a guide to how it might facilitate high speed broadband infrastructure by complementing other telecommunication services throughout the region. The output of this work focuses on challenges and opportunities that include improving backhaul capacity to the region; supporting development of fibre enabled precincts; investigating the potential for a regional datacentre; and enabling intelligent community initiatives.

Council has also developed an Intelligent Community Strategy, co-created by Council, industry, academia and community leaders to support innovation across business, industry and residents. The primary focus of this strategy has been to provide a pathway for identifying and delivering on intelligent community solutions that solve problems using technology.

In support of the work above, Council continues to pursue opportunities and develop relationships with telecommunications providers where Council's support and investment may complement or expand existing infrastructure. A number of opportunities (both past and emerging) include:

- Bundaberg having been an early rollout location for the nbn network
- Support for mobile network operators (MNOs) to invest in new mobile telecommunications infrastructure under the Australian Government's Mobile Blackspot Program
- Joint collaboration with nbn to improve broadband infrastructure that:
    - Investigates opportunities under the Regional Co-Investment Fund
    - Strengthens telecommunications against natural disasters (STAND) for evacuation centres utilising nbn satellite technology
    - Supports resilience of fixed wireless connectivity by installing Hybrid Power Cubes (HPC) on telecommunications towers throughout rural parts of the region
- Exploring opportunities for improving network capacity through Queensland Capacity Network (QCN) to open up and utilise latent fibre optic cable
- Internal investigations for deploying Council owned pit and pipe infrastructure (COPPI) that would extend existing fibre networks in strategic locations and areas of anticipated growth

Improving telecommunications capabilities across Australia is an enormous undertaking, and Council acknowledges the Australian Government's commitment (through many of the initiatives noted above) to improving digital services and connectivity for communities across regional and remote Australia.

However, in order that the Bundaberg region (and other regional areas across the country) remain competitive and fulfill their potential economically, socially and environmentally, targeted investment across all three levels of government and private industry is needed to address the following issues.

- Significant disparity exists between the cost and quality of services in regional Queensland versus major population centres (i.e., in southeast Queensland).
- The limited infrastructure and lack of competition in regional Australia results in a "regional tax" for quality digital services.
- Service reliability (in relation to mobile connectivity) continues to impact the region's communities and businesses, particularly with regard to critical services such as healthcare and emergency response during times of natural disaster.

Council would particularly like to highlight the following challenges, which likely are ubiquitous across many parts of regional Australia.

Fibre backhaul and fibre footprints
The nbn has a number of current initiatives that are designed to assist regional communities and businesses with connecting to high-speed fibre networks.

- The **Business Fibre Initiative** assists in providing enterprise ethernet to businesses within nominated business fibre zones with no up-front build costs, and at competitive wholesale pricing.

- The **Regional Co-Investment Fund** aims to enhance broadband services for rural and regional households, businesses and communities to help meet the growing needs of regional areas. Example initiatives may include the transition from satellite or fixed wireless to a fibre footprint, along with the required backhaul to service the nominated location.

Where economically viable, Council would encourage the Australian Government to continue prioritising investment in backhaul and fibre networks that service regional communities, especially where other tiers of government and private industry co-invest to deliver infrastructure. Improved infrastructure and additional network capacity will help to introduce market competition; provide alternative services to the end customer; and help to alleviate the regional tax on quality digital services.

Mobile blackspots

The Australian Government has committed to multiple rounds of the Mobile Black Spot Program (MBSP) to invest in telecommunications infrastructure and improve mobile coverage and competition. The program has been supported by co-contributions from state and local governments, mobile network operators, businesses and local communities, which collectively has delivered more than 1,200 new base stations across Australia.

Council would encourage all three tiers of government, led by the Commonwealth, to prioritise the continued investment in infrastructure across regional Australia that enables access to reliable mobile coverage. Mobile coverage is becoming increasingly important for essential services in rural and remote areas, particularly with regard to education, telehealth services, emergency management, and during natural disaster events (e.g., bushfires).

Whilst Council acknowledges that not all telecommunications infrastructure may have the same economic returns for mobile network operators (MNOs), we collectively have responsibility to improve coverage to support these critically important services.

Consideration for mobile roaming

Further to the issue of inadequate mobile coverage in regional areas is the topic of mobile roaming. In its *Domestic mobile roaming declaration inquiry* (2017), the ACCC investigated the potential impacts of declaring a domestic mobile roaming service. The ACCC assessed whether such declarations would promote competition, increase connectivity and encourage economically efficient use of, and investment in, infrastructure. Ultimately the ACCC decided not to declare a domestic mobile roaming service as it was not satisfied that declaration would promote the long-term interests of end-users.

Council would support renewed government consideration for telecommunication operators to provide competitors with access to their mobile infrastructure for the purposes of enabling roaming. Such a move would support regional communities and improve safety for residents and tourists travelling in remote areas (particularly in relation to the essential services noted above). Roaming should be accessible as a minimum during emergencies such as floods and bushfires so communities can access local support, information and loved ones in times of emergency.

Internet of things (IoT) and the agriculture industry
As the agriculture industry has evolved, technology has become an indispensable and deeply embedded component for improving efficiency, increasing yields and reducing costs. Changing climate patterns (e.g., increased temperatures, rainfall variability, extreme weather events), compounded by global population growth and lack of water security, present significant challenges to future agriculture production. Technology solutions in the form of Internet of Things (IoT) devices, data collection, and analytics help to make more informed decisions to improve agriculture output, cost efficiency, and better environmental and social outcomes.

With this in mind, Council supports forward planning for the use of wireless technologies (e.g., 5G services, LoRaWAN, etc.) in regional areas and the impact of the Internet of Things (IoT) on regional communities. Supporting infrastructure needs to be designed to enable coverage that enhances interconnectivity between farmers and their respective operations, ultimately enhancing modern farming and making the best use of emergent technologies.

It is important that local government and stakeholders across the region are given the opportunity to provide feedback with a local understanding of the challenges and how better digital connectivity would aid with overcoming barriers for those living, working and investing in regional Queensland. As an appendix to this submission, a testimonial from the Gin Gin Hospital has been attached to provide further context and answer some of the questions that the Australian Government has outlined in the Issues Paper.

With continued collaboration between government and private industry, along with investment that supports critical infrastructure and services, region areas can continue strengthening essential services that underpin regional growth, investment attraction and the innovative ecosystems that encourage new and emerging industries.

Council would like to thank the Panel and the Australian Government for the opportunity to submit this feedback. If the Panel has any further questions or would like to discuss the contents of this submission, please contact Ben Artup, Executive Director Strategic Projects and Economic Development, on (07) 4130 4303 or via email at ben.artup@bundaberg.qld.gov.au.

Yours sincerely

Jack Dempsey
Mayor - Bundaberg Regional Council

Testimonial: Gin Gin Hospital

The Gin Gin Hospital is a six-bed acute bed facility which provides outpatient (270 – 320 occasions of service per month), emergency (240 - 280 presentations per month), pharmacy, general medicine and palliative care services. The hospital's catchment area includes the far west of the Bundaberg Local Government Area, as well as portions of North Burnett and Gladstone Regional Councils. There are seven hospitals in the Wide Bay Burnett area that are classified as rural, provide similar services to those in Gin Gin, and are also impacted by the lack of quality telecommunications.

Given the rural location of the Gin Gin Hospital, residents simply do not have access to the advanced health services available in Bundaberg City, let alone major population centres. Whilst Queensland Health works to provide essential services through Gin Gin and neighbouring Childers hospitals, it increasingly utilises telehealth services as a foundation for bringing advanced medicine into rural Australia. With telehealth services being such a critical component across rural and remote Australia, it is more important than ever to ensure quality and dependable telecommunications services, without which, potentially life-saving technology can be rendered useless.

Gin Gin Hospital provides a minimum of 4-5 telehealth consults per week, whereby patients come to the hospital to videoconference with GPs or specialists. Consults are conducted using a specialised telehealth unit (bespoke camera and related hardware), which helps to fulfill Queensland Health's vision for bringing *care closer to home*, whilst reducing the burden of travel times for patients.

Important telehealth services that are offered from Gin Gin (and other rural hospitals) include tele-chemotherapy, tele-renal, palliative care, mental health, and a suite of allied health services. Telehealth capabilities are particularly important for patients that receive treatment and are unwell, who may require continued follow ups as frequently as every three months. These telehealth services allow patients to receive services closer to home and eliminate long distance travelling which costs time, money, productivity, not to mention the price for travelling while unwell.

Barriers to quality telecommunications (and subsequent constraints on telehealth services) can be attributed to lack of adequate backhaul servicing the Gin Gin community (and other townships with rural hospitals). The lack of backhaul infrastructure (and competitive alternatives) means that Gin Gin Hospital receives a 10MB connection at a cost similar in price to a 400 or 500MB link in metro Brisbane. Beyond backhaul constraints, mobile coverage in the Gin Gin area is poor to non-existent, causing additional barriers as mobile devices serve as a primary means for contacting and engaging patients.

Low bandwidth capacity is a significant constraint to day-to-day operations, requiring all non-essential software applications be closed down in order to open up bandwidth for critical telehealth services. Even basic tasks such as uploading or downloading digital medical imagery (40-50 MB in size) takes minutes to process. Furthermore, when telehealth services are constrained by latency and slow speeds (either in the hospital or at patient homes), patients become disengaged from the process, their health does not improve, and they begin to lose social connection when not well.

In addition to the telehealth services noted above, Gin Gin (and other rural hospitals) rely on the Telehealth Emergency Management Support Unit (TEMSU). The TEMSU unit has high resolution cameras and a range of diagnostic tools that can communicate information over the Internet. For emergencies that happen overnight, Gin Gin Hospital connects with medical officers in Bundaberg using TEMSU. Depending on the assessment, and if the patient is in critical condition, then Retrieval Services Queensland (RSQ) is contacted to coordinate aeromedical retrieval and inter-hospital transport of patients across the whole of Queensland.

High speed and dependable broadband is absolutely critical to run these systems to aid in what can literally be life or death situations.