Submission

to the

Regional Telecommunications Independent Review Committee

into the

Regional Telecommunications Review 2024

from the

Federal Council

of the

Isolated Children's Parents' Association of Australia Inc.
ICPA (Aust)

July 2024

The Isolated Children's Parents' Association of Australia, ICPA (Aust), welcomes the opportunity to contribute to the *Regional Telecommunications Review 2024*, providing feedback related specifically to communication needs of rural and remote families who often have unique communication needs in order to educate their children.

ICPA (Aust) is a voluntary, apolitical, national parent organisation, which advocates on behalf of our members for equity of access to an appropriate education for all geographically isolated children and students, from early childhood through to tertiary. Most member families of the Association reside in geographically isolated areas of Australia, and all share a common goal of achieving equitable access to education for their children and the provision of services required to achieve this. Students whose family home is in rural and remote Australia, often live great distances from their nearest education institution and from services required to support the education of these students.

ICPA (Aust)'s advocacy extends to the communication needs of rural and remote education and geographically isolated students. Adequate communications underpin the ability for students in rural remote areas of Australia to access their education programs and resources. The importance of ensuring high quality, reliable and affordable communications services is critical. For these students, communication is key.

Telecommunications are essential to any modern economy, however for far too long people that live, work and are educated in geographically isolated locations have experienced less than equitable telecommunications access and seeking solutions for this has been a core part of ICPA (Aust) advocacy for many years.

Since the last Regional Telecommunications Review in 2021, there have been some major communications developments in regional, rural and remote locations. ICPA (Aust) has welcomed these advances, which have proven very beneficial to our members, including:

- the roll out of Sky Muster Plus Premium and SMS over Wi-Fi. It is important that these advancements be maintained and enhanced, coupled with a necessity to address the ongoing communications lags and issues which continue to hinder equitable educational opportunity
- the renewal of funding to the Regional Tech Hub and the School Student Broadband Initiative. Both initiatives have provided opportunities for members to increase and/or improve their connectivity options.
- the 2023 announcement of the extension of the Customer Service Guarantee (CSG), which regulates the timeframes for connection, repairs and appointments for fixed telephone services, for a minimum of three years. Continued provision and maintenance of adequate and reliable telephony services in regional, rural and remote areas is critical
- the expansion and increased use of emerging technologies such as Low Earth Orbit Satellites (LEOSats).

It is especially important to ensure there is a recognition that experiences, challenges and needs differ considerably between regional vs rural vs remote areas. Further differentiation may be experienced depending upon geographic location in terms of weather, landscape and environment. As an example, given that by definition, the Gold Coast and Perth are deemed regional, there are very different communications experiences/situations in those locations when compared to a remote property in the Queensland Gulf or the Western Australia Pilbara.

EQUITABLE ACCESS
The key message ICPA (Aust) continues to promote across all components of our advocacy is equitable access to educational opportunities for geographically isolated students. Often in rural and remote areas of Australia adequate communications underpins the ability for students to access their

education programs and resources. The importance of ensuring high quality, reliable and affordable communications services for educational purposes is critical. ICPA (Aust) believes there are a number of key points of particular importance to achieving this.

INTERNET ACCESS

Sky Muster Plus Premium
The development of Sky Muster Plus Premium, providing unlimited data allowances, has been a most welcome advancement to Sky Muster Plus for many students in geographically isolated Australia who rely on satellite internet to access educational programs and resources. The ongoing enhancement of this service has continued to improve the experiences and opportunities for users. Other developments such as Wi-Fi calling and SMS over Wi-Fi have further enhanced the communications experience of Sky Muster and Sky Muster Plus users.

The availability of Sky Muster Plus Premium has meant that students who are not eligible for the Education Port can take advantage of the Sky Muster Plus Premium service and its uncapped data. This includes tertiary students and boarding students who increasingly have to partake in study while visiting their rural or remote home away from their education institution, including watching YouTube clips or video streaming as part of their studies and the submitting of assessments and assignments.

Our members require assurance that the following are maintained and where possible enhanced as part of Sky Muster satellite services:
- continuation of the subsidy for instalment/equipment of Sky Muster for regional, rural and remote (RRR) families
- access to services which provide adequate capacity and capability for educational purposes, be this Sky Muster Plus, Sky Muster Education Service ('ed ports'), or an alternative equal or better service
- uncapped data
- the ability to receive SMS over Wi-Fi
- Wi-Fi Calling

Satellite Internet for Transient Families
ICPA (Aust) has continuously maintained its advocacy with the Federal Government and NBN Co for affordable portable internet products for students from transient families working in remote locations of Australia who require access to internet services to study via distance education. The availability of LEOSat technology and other transportable options have assisted in providing a solution to this problem for some, however no subsidy currently exists to assist families with the associated significant costs of these services. It is essential that support such as financial subsidies and equipment provision be provided so families can access these solutions if and when they are made available. Distance Education has moved significantly to a more online based, direct teaching model and if students are unable to access live lessons, they miss these critical learning and social opportunities as well as being marked absent. Every student has the right to identify and be a part of their school and these students should be no exception.

Satellite Internet Limitations
It is essential to recognise that while satellite services have greatly improved the experiences of many rural and remote residents, there are limitations for users of satellite technology which means it is not sufficient as a standalone communications service. Satellite latency, speed variability and dependency on power can cause issues to the user experience and indeed limit the ability to work 'in the cloud'. The impact of the weather and landscape conditions in some locations can also impact quality, accessibility and availability of services, resulting in a lack of access to education should these impacts

occur. This must be taken into consideration to ensure that services provided are suitable in the first instance and are also continuously maintained and upgraded once installed.

Another limitation of significance is the difficulty end users sometime face when trouble shooting their connection when it is not working. Satellite internet Retail Service Providers (RSP's) need to be more forthcoming with up to date practical solutions to help rectify connection issues in a timely manner.

The ever-increasing need for end users to resolve issues online through a chat system is also problematic and unworkable at times given the already restrictive connectivity which exists for many rural and remote customers.

Alternative Services and Technology
New, emerging or alternative technologies may assist educational access including enhancement of online activity for rural schools and distance education delivery, either as a backup, supplementary or replacement service. It is imperative that financial and other support is provided to ensure these technologies are readily available where and when needed??

Telehealth
Telehealth offers innovative opportunities for the delivery of allied health and specialist services such as speech pathology, mental health consultations, occupational therapy intervention to aid fine motor skill development and even capacity building to support educators and parents dealing with children experiencing difficulties in rural and remote areas. Availability, accessibility and adoption of telehealth services in rural and remote areas hinges on the availability of adequate technology and connectivity to these children and their families.

The Commonwealth Government needs to continue to work proactively and cooperatively with companies attempting to bring diverse universal broadband internet to Australia, including alternative satellite-based internet services and technologies. The importance of options and choice when accessing internet services is vital, with the potential for alternative technology to provide more affordable, practical and accessible solutions for geographically isolated families.

MOBILE COVERAGE/SERVICE

Mobile connectivity topics are consistently raised in a variety of forums with lack of access, reliability of coverage and the need for backup power constantly on the agenda. ICPA (Aust) acknowledges that Federal Government funding grants are providing some assistance in meeting the necessary infrastructure improvements to satisfy these requirements, however more needs to be done.

3G Shutdown
Since the announcement in 2019 that Telstra would be switching off its 3G network on 30th June 2024 members have made ICPA (Aust) aware that communications on the subject have been frustrating and challenging. Despite having a dedicated customer service number, the information provided has been inconsistent and in many cases confusing. Queries have been raised with ICPA (Aust) asking the question as to what will happen if there are customers who are unable to switch over to the 4G network when the 3G network is shutdown.

Telstra is promoting with great confidence that the 4G service will be equivalent to or an improvement on the current 3G experience, but that sentiment is not supported within much of the wider community. There is a general feeling of great uncertainty and anxiety as to the coverage that will be available when 3G is shutdown. The consistent reports of loss of service as customers transition

between 3G and 4G coverage and the diminishing access to the existing 3G service raises concerns about the coverage area and access to 4G.

Telstra continues to convey that where areas currently have a 3G signal they are committed to providing 4G before they close the 3G network. However, this is only applicable to 3G coverage showing on their coverage maps. It does not include those who receive fortuitous 3G coverage, that is, their property does not appear on the 3G coverage maps, yet they are able to receive limited 3G service. Members have been advised that if they are not on the Telstra coverage map there is no guarantee that they will have access to the 4G network in the same way as they have had 3G service.

Telstra have consistently claimed that the 4G network has greater coverage due to the lower spectrum (4G - 700mhz as compared to 3G – 850mhz). If this is the case, and 4G signal travels further, there is considerable uncertainty and confusion as to why Telstra are unable to guarantee coverage to everyone who is currently receiving some form of 3G coverage albeit that location is not on their coverage map. Apparent degradation of coverage in recent times in some locations where 3G has previously been available as the changeover to 4G and 5G has occurred is also perplexing to residents.

ICPA (Aust) has reiterated that for families who reside in rural and remote Australia to have adequate access to this fortuitous 3G coverage, they need to purchase equipment over and above the standard requirement, such as the requirement for a Cel-fi booster and/or smart antennas, which now need replacing as services change from 3G to 4G (the supply of such equipment has been problematic with periods of unavailability, and for some no guarantee of supply before the 3G network is shutdown). Without a guarantee of 4G coverage, families are reluctant to purchase new, often expensive to purchase and install, equipment only to find out they do not in fact have coverage and the equipment is rendered useless. Alternatively, they may in fact get sufficient 4G coverage, so they do not even require such equipment.

For a metropolitan customer, a change of technology such as the move to 4G/5G from 3G may require the replacement of a handset, however, will otherwise have very limited impact on their communication services. For rural and remote customers who require extra equipment to access technologies which they must fund, access and install themselves, such a change is far more expensive and impactful. The provision of rebates or subsidies would ensure these customers are not left behind as new technologies are developed and adopted.

For some members, the availability of 3G mobile coverage has resulted in the cancellation of their copper or High Capacity Radio Concentrator (HCRC) landline services, especially in situations where the reliability and maintenance of the landline service was problematic. However, some of these families are now realising that their 3G coverage was only fortuitous and as a result, when the 3G shutdown occurs, they may have no voice service other than their satellite internet connections.

For families who do have mobile coverage, it is highly valued as it affords a backup for the voice and data services of school 'on air' lessons when landlines or other internet sources are out. If families with fortuitous 3G coverage lose access through the 3G shutdown these students risk losing touch with their School of Distance Education or School of the Air centre as they will be unable to participate in online lessons with their teachers and classmates when other services are down. Distance Education has moved to a more direct teaching model and if students are unable to access online 'on air' lessons, they miss these critical lessons with their teachers. Every student has the right to identify and be a part of their school and these students should be no exception.

Where it is available, having mobile coverage also allows distance education students to continue their schoolwork and lessons if they are travelling between home and town or away from their main schoolroom (i.e. in a stock camp for a few weeks with their family).

As the changeover from 3G coverage to 4G/5G eventuates, assurance is needed that the new coverage is equal to or better than the existing service has been with 3G, that is, anyone who can access 3G now should still be able to access this service after it is closed down. Members have raised a number of concerns with ICPA (Aust) including reduced voice coverage in regions that previously had strong coverage and increased call drop outs.

Fixed Wireless
As demand increases for communications access throughout rural and remote Australia equal to metropolitan areas, issues have arisen with oversubscription of local wireless towers and indeed changes to the reliability of services where this form of connectivity is relied upon for educational purposes. It is essential that these circumstances are addressed and rectified as a matter of urgency when and where they arise.

ICPA (Aust) encourages the unmetering of educational sites on mobile networks, as well as increased data allowances to assist families who either rely on mobile broadband for education provision or use it as an adjunct to other internet services (such as those families who may have a Sky Muster or Sky Muster Plus service as their primary service).

Congestion/Shrinking Coverage
Previously, the use of illegal boosters was draining mobile signal in numerous regional, rural and remote areas. Following a large awareness campaign and crack down which saw many of these repeaters removed, it was hoped that the congestion issue would improve. However, mobile infrastructure in rural and remote areas continues to be overwhelmed with increased demand coming from a variety of sources such as numerous travellers visiting areas for longer stays, mining developments and operations and other industry in rural and remote areas. This in turn impacts the available signal which community residents rely on. A smaller footprint or shrinking coverage area of signal is also being reported in communities.

TELEPHONE

Voice services
In recent years there has been a rise in the number of mobile voice services and a fall in the number of fixed voice services in Australia; the situation is quite different in the rural, remote and very remote areas where most of our members reside. Many of our members still rely on landlines (Copper, HCRC Systems, Next G Wireless Link (NGWL) or Satellite phones) due to the unavailability of mobile coverage or another reliable service. These services are essential, and for many individuals residing in regional, rural and remote areas they are the only reliable and trusted lifeline during natural disasters and emergencies.

In rural and remote areas, landline telephone connections remain a significant and essential part of the communications services relied on by residents. These services play a significant role in providing voice services to accompany 'on air' lessons with teachers and classmates, as well as additional lessons and seeking assistance from teachers at the distance education school centres.

As a large portion of geographically isolated distance education students live outside of mobile coverage areas, maintaining landlines and ensuring that these services continue is paramount for these students. When internet services fail, the availability of landline phones ensures that students still have connectivity and are able to continue participating in their lessons, even if the video/online

portion is out. Until such time as an equivalent or better alternative, appropriate and reliable voice technology is available, current landline telephony services and technology must continue to exist to allow rural and remote students to access education. These telephone services must be reliable, fit for purpose and maintained at a fully functioning standard. The removal of landline telephones as a standard voice service from premises in rural and remote Australia would be detrimental to all who reside in these locations, significantly impacting the ability to educate children, the safety of residents and ability to run businesses successfully.

Alternative Voice Services Trial (AVST)

The AVST presented an opportunity to identify different ways to deliver, test and raise awareness of voice services in locations across rural and remote Australia. ICPA (Aust) welcomed the government's commitment to investigating and identifying alternative technologies to replace antiquated services such as HCRC and copper lines, which are currently deteriorating.

It is disappointing that the AVST, which promised to investigate and identify alternative technologies, has resulted in primarily satellite-based alternatives, essentially Voice over Internet Protocol (VoIP), which for the most part are already available. Satellite internet-based solutions for voice services in rural, remote and very remote areas are not a satisfactory alternative as these families require a voice service which is independent from their data service, reliable in weather events, power outages and do not suffer from latency.

ICPA (Aust) appreciates that the trials were only able to fund those technologies offered by interested parties and welcome assurance that nothing will change with regards to current landline phone service types unless the solutions are equal to or better than existing services and we implore this to be guaranteed. ICPA (Aust) also urges the government and service providers to investigate further alternatives to these old technologies to ensure rural and remote families have access to a high quality, reliable voice service. For example, the provision of a modernised HCRC system may be the most efficient and reliable form of voice communication in some rural and remote areas of Australia.

Some alternative technologies seem to be reliant on access to a mobile service (which is not available to many rural and remote families) and other services would rely on satellite. These services are often also reliant on electricity connections. ICPA (Aust) continues to advocate that all residents living in geographically isolated areas should have access to *at least two independent alternative sources of communications* and not be solely reliant on one communication source. This would not be the case for many residents currently solely reliant on satellite for internet should their existing non-satellite-based voice service be transferred to a similar technology. A move from existing HCRC or copper line services to VoIP services reliant on satellite is not a satisfactory replacement for legacy voice services at this time, where rural and remote residents currently only have satellite internet access. In remote locations where electricity outages occur regularly, it is also imperative that new services do not hinge on the supply of power to operate.

Trials

In considering alternative voice services it is imperative that any possible solutions are rigorously tested for robustness in a variety of areas where there remains no mobile coverage, to prove that they can be relied upon and withstand the harsh and often unique weather and environmental events of rural and remote Australia. Testing reliability, durability and quality in urban settings is not reflective of the environments in which they will be used and relied upon.

ICPA (Aust) has implored that any testing or investigation of alternative services needs to be undertaken in real life situations and in particular in remote locations where our members will be impacted by any changes. ICPA (Aust) was assured by Telstra that this would be the case.

Rain fade (loss of signal strength in radio communications due to rainfall) is a known phenomenon and Telstra have been undertaking measurements to determine to what extent it causes service outages for the LEOs technology, Starlink. Measurements were conducted from November 2023 through to May 2024 at seven locations across Australia including the Northern Territory, Far North Queensland, Victoria and South Australia, using rainfall gauges also at those locations.

The results from those mere seven locations have been used to present data representative of national results as a national average. The data received is not a true reflection of the impact of rain fade given the lack of variety of locations and such a small data collection base can easily have adverse effects on results. ICPA members and other stakeholder groups offered to be a part of such trials to provide a more real-life representation but only Telstra employees partook in the trial. Additionally, no testing was undertaken for impacts from smoke (as a result of bush fires that can burn for weeks) or dust storms. The reliability of new or alternative technologies must be comprehensively and unequivocally tested and until such time as this occurs, no changes should be made to current technology which is known to work for families in these locations.

Timeframes for trials need to be extensive and ongoing to assure accurate results. For example, in a twelve-month period in a drought situation there may not be any weather events that will affect connectivity. Trials should be undertaken in a range of circumstances and a wide range of rural, remote and very remote sites, that will be reliant on the services, to assess the impact factors such as climate, terrain, topography, vegetation, dust and/or smoke, power supply type (especially where the technology is reliant on electricity supply), weather and accessibility to the site. These factors impact services and their effect on the alternative technology being trialled.

Effective trials should include factors such as:
- reliability, ease of installation, customer service
- repair times - sites where the alternative technology is being installed or may be installed in the future are remote locations where currently it is difficult to have services repaired and elongated repair times are common. The need for access to adequate repair mechanisms needs to be considered for any new or alternative technology
- support for customers 'learning' new technologies, ease of use of alternative technology
- affordability
- how the alternative service complements or supports current services available in the area should also be monitored. People living in geographic isolation require a minimum of two communication services in order to ensure that they have a functioning form of communication at all times - current technologies can see communications down from power outages, weather events (rain fade for nbn Sky Muster satellite) and faults. Alternative services should also look at being independent of already existing services so that those living remotely will have surety with a balance of communications methods available to them.
- consideration of the stability of the service and if there are noticeable variations in quality of the service – are there specific times when the service is not as effective as others? Does the weather (rain, wind) affect the service?
- the aim to gather data across various key metrics relevant for performance of voice services i.e., availability/uptime, upload and download speeds, latency, packet loss, jitter, echo, noise etc.

It is important to test new technology with a cross-section of rural, remote and very remote customers and more specifically in locations where the technology may be relied upon, as communications needs, environmental factors and the other aspects of rural and remote Australia which may impact reliability and quality of telecommunications services varies greatly. The telecommunications network

operators should be required to maintain network resiliency or provide redundancy options on their networks.

Reliability and Maintaining of Existing Services

In geographically isolated parts of Australia it can prove challenging not only to provide adequate communications services but to also ensure these services are maintained, repaired and reliable. ICPA (Aust) continues to advocate that, where educational delivery hinges on the availability of communications technology, it is essential that priority is given to the installation and maintenance of these services. Voice services and internet technologies can be unreliable at times, (e.g. the impacts of inclement weather on satellite services) and can cause significant issues for rural and remote families, especially when the education of students is reliant on these technologies.

This includes both antiquated systems such as HCRC technology and the current VoIP technology and extends to any other technology currently in use in rural and remote areas. While the Universal Service Guarantee (USG) continues to be in place, we are aware of many cases where this has not been upheld. ICPA (Aust) is also very concerned that there are situations where telecommunications providers are limiting maintenance and repairs of older, existing technologies despite there being limited to no alternatives to these technologies in many areas. It is also imperative that ongoing inspection, scrutiny and enhancements are made to continuing technology to ensure it is working correctly. ICPA (Aust) has had concerns raised on the degrading of some technologies over time and it is essential that where there are no alternatives or upcoming replacement technology that the current standards are at least maintained.

ICPA members have raised the need for reliable landline handsets which can simply be plugged into a working phone line (jack). Many landline phones today have features requiring power and hence are non-effective when there are power outages or for rural properties relying on generator power, which is an issue for rural and remote customers when the generator is not operating (i.e. calling 000 during the night, or students trying to use the phone for a voice lesson if the power is off).

The delivery of voice services under the Universal Service Obligation (USO) must continue to provide for the unique and challenging needs of regional, rural and remote Australians. Rural Australia deals with the impact of fire, drought, floods and the tyranny of distance and residents rely heavily on landlines and digital services. The robustness and ability of the existing landline to work independently of third party services, e.g. power, is the minimum standard that needs to be considered in any USO reform. A working landline is a critical safety net.

All communication providers must fulfil their Universal Service Guarantee (USG) obligations in the provision and functionality of essential communication services to enable the delivery of rural and remote education. Until such time as viable alternatives are made available, HCRC and copper landline services for voice must be maintained and upgraded as required in accordance with the Consumer Services Guarantee (CSG).

Further, the current CSG framework should be retained and upheld, along with extending its protections across more services to ensure that all consumers are protected regardless of the service they utilise and even if their communications usage changes over time. Without the future continuation of the CSG customers will be left vulnerable, particularly those who continue to rely on Telstra legacy network services, including copper lines and HCRC, along with those members whose children attend small rural schools that are still dependent on Telstra legacy services for contact to access emergency medical help, teacher support, assistance, mentoring and general administration tasks of a school.

Some members report being offered a Next G Wireless Link or 4G Fixed Wireless Service instead of having their landline repaired. However, unlike a landline, this service requires standard power to operate and mobile coverage.

The provision and requirement to maintain services needs to be transparent, easily found and understood as well as cover both voice and data connections. Processes must be defined and mandated so that if the companies bound by the safeguards, customer service guarantees, etc. do not comply with the standards set, there are repercussions and penalties for not meeting these targets. This could include automatic compensation for customers (who currently receive a little compensation at times if they complain adamantly and request it, however they have to be aware of the CSG terms in order to raise the issue).

EMERGING TECHNOLOGIES

Technology develops quickly, and a blend is needed in regional, rural and remote (RRR) areas; there are different needs for different situations. While the developments in communications are exciting, one particular type (LEOs or satellites in general for example) cannot be the only solution or source for all needs.

Any new technologies must:
- be fit for purpose in their specific location, evidenced by data collected on location in regard to robustness, reliability, longevity etc from trials
- not be dependent on third party services for reliability, for example, battery back-up and power supply needs to be provided with the voice service.

Low Earth Orbit (LEO) Satellite Services

Emerging developments in technologies associated with Low Earth Orbit (LEO) satellite are providing opportunities to enhance rural and remote communications and provide increased choice and opportunities for ICPA members, both in the areas of telephony and internet. According to the The Low Earth Orbit Satellite Working Group Chair's Report, *'The inclusion of LEOSats should only follow extensive testing of their suitability.'*

This recommendation supports the view of ICPA (Aust), that it is important to test new technology with a cross-section of rural, remote and very remote customers and more specifically in locations where the technology may be relied upon. The Starlink trials undertaken by Telstra do not meet that recommendation.

ICPA (Aust) acknowledges the potential for LEO technology to provide improved and alternative choices and options for our members. Indeed, LEOSat technology has already provided opportunities and benefits to some members. However, ICPA (Aust) continues to maintain that it is essential that any changes to current services should not be made unless an equivalent or better alternative is available and that rural and remote residents are not left with communications reliant on only one source.

The Commonwealth Government needs to continue to work proactively and cooperatively with companies attempting to bring diverse universal broadband internet to Australia, including alternative satellite-based internet services and technologies. The importance of options and choice when accessing internet services is vital, and may provide more affordable, practical and accessible solutions for geographically isolated families.

BARRIERS TO REGIONAL COMMUNICATIONS

Reliable Power

Current telecommunications systems which our members rely upon, such as HCRC and copper services, do not rely on electricity to function. However, in many cases the equipment required to access digital communications technology does.

Both mobile and internet services require power (especially if using fixed Smart Antennae or Cel-Fi equipment) and if there is a power outage the service cannot be relied upon. Many properties that are on self-generated power simply cannot sustain running their generators 24 hours a day (due to the exorbitant cost of diesel fuel), which would leave them without a voice service in times that their generators are off. Further, in many rural and remote areas where there is mains power, this is fraught with regular and frequent outages. Families in the bush need communication services from different sources as when a service is not working, it can be a long distance to assistance.

When communications services are down, it not only affects children's education and business but is also a major safety issue. If VoIP is to replace landlines, and there is no mobile coverage, those on non-mains power will have to get additional battery backup systems as the internet (and therefore the phone) is off if the generator is off. In the case of an emergency during the night the generator would need to be started and the system would need to power up prior to being ready for use – all valuable minutes in what could be a life and death situation.

Perhaps an even larger concern is the unpredictability of rural mains power. Power outages occur unexpectedly and frequently in rural and remote areas due to numerous causes including severe weather. These power outages can last for hours and even days. As with non-mains power, unless all internet services are equipped with substantial battery backup, phone service through VoIP will also not be available. A consideration could be the ability to utilise local services as a back-up. For example, if mobile towers or other new technologies that require power are on properties that have, for example, a generator, arrangement could be set up where that generator may be used to provide power at the flick of a switch.

Digital Literacy and Support Services
A key impediment to the communications experiences of rural and remote members is a lack of understanding of communications and technology in rural and remote areas, not only in the case of individual consumers, but across many levels of the community. Barriers to accessing this information include distance from urban centres and limited resources within communities. Increasing the use of digital technologies in RRR communities hinges upon overcoming these barriers which affect both the ability to access technology, along with the limitations of the technology available.

This is where the vital role of the Regional Tech Hub is instrumental in providing up to date information specific to location and offering a great understanding of the connectivity challenges faced by regional, rural and remote families. In more populated areas, people can learn about new technology and its uses by seeing it demonstrated by other people and friends sharing information, hints and tips. However, this is not always possible in RRR Australia and the Regional Tech Hub is an example of an initiative which is working well in RRR Australia and enhancing the digital literacy and support services available to the community.

It is essential that there is a concerted effort toward building digital literacy and imparting relevant and accurate support and information to ensure ample opportunity for all residents to understand their communications options.

Local governments could be encouraged and supported to provide more exposure to digital literacy and upskilling opportunities to community members in order to grow understanding and confidence through using a variety of communication resources in rural and remote communities e.g. workshops. In NSW there is funding available from the State Government called "Tech Savvy Seniors Program",

which is available to libraries and Registered Training Organisations for addressing digital literacy. The Federal Government offers "Be Connected" Funding for digital literacy to libraries and Registered Training Organisations. Both of these funding avenues have their limitations, such as age demographics or topics. These programs could pave the way for an extension to assist with digital literacy, specific to rural and remote customers. It is also essential that the on the ground experiences, local knowledge and skills of local residents are not discounted and are indeed harnessed in this regard. In some circumstances, rural and remote residents are far more au fait with their technology than in other locations due to the research and effort required to ensure their communications needs are met, especially when needing these services to educate their children. This factor should be acknowledged and utilised.

Service and Support
It is imperative that service providers and their staff have adequate understanding and knowledge of the contexts and circumstances in which families are using their services in order to assist and support end users effectively and efficiently, especially where they are reliant on services to educate their children.

ICPA (Aust) members report abysmal support from some providers, both for internet and phone services. This is also an issue when accessing a service provider shopfront where support and advice does not necessarily reflect the requirements of rural and remote customers. Not being able to access adequate support and assistance makes it especially challenging to receive quality services and repairs in rural and remote areas. Another limitation of significance is the difficulty end users sometime face when trouble shooting their connection when it is not working. Retail Service Providers (RSP's) need to be more forthcoming with up to date practical solutions to help rectify connection issues in a timely manner.

The ever-increasing need for end users to resolve issues through an online chat system is also problematic and unworkable at times given the already restrictive connectivity which exists for many rural and remote customers.

ICPA (Aust) welcomed Telstra moving their call centres on shore, however this needs to go further to ensure there are centres which can address the unique needs of rural and remote customers for all their communications needs.

The unique lifestyle and work situations of rural and remote families are often incompatible with the support, maintenance and other services for technology which may be available. The workforce often works beyond the standard nine to five-hour work day, and availability of a help desk only open during office hours is not compatible. However, if telecommunications provider help desks were accessible for extended hours with an option for priority call back outside of hours *at the start time the following day* it would offer more accessible assistance for these families. Additionally, a specific help desk for rural and remote families, staffed with knowledge of the unique and challenging issues faced by rural and remote communities would be beneficial. The dedicated Telstra HCRC '1800 RRadio' facility has been an effective and welcome model which could be enhanced and implemented further for rural and remote customers. The option of email reporting should also continue as it offers an additional way to flag faults when voice services are out.

Affordability
People living in rural and remote areas often go to great lengths and private expense to try to bridge the gap in order to access digital services, whether this is internet, telephony or television. These extra costs, covered by the consumers themselves should be taken into consideration. Each time technology changes, families living in rural and remote areas have additional costs, which are often

significant, in order to update equipment and resources to try to remain connected in the quickly changing digital world. An example is the imminent change from 3G to 4G mobile service, where some rural and remote customers who live on the fringe of mobile coverage have purchased and installed at their own expense aerials, antennae, boosters and compatible handsets, not only for household and personal use but also for vehicles and business needs, to connect to mobile services and it is now necessary to upgrade this equipment at additional cost.

5G is approaching in the future and these same families may again be required to upgrade to access a service that others living in metropolitan or larger regional centres can access without the need for extra purchases. Financial or other assistance such as discounted or subsidised equipment and hardware should be made available to assist residents to change between technologies where equipment, over and above standard requirements, is needed to access these technologies in rural and remote areas. An example is the requirement for a Cel-fi booster needed to access mobile services to be changed from 3G to 4G/5G.

EMERGENCIES AND NATURAL DISASTERS

Rural and remote families travel vast distances to transport students to school where there is no or little mobile coverage. These roads are generally unsealed and for families travelling on these roads without connectivity is an added risk. Of particular concern for our members is the lack of ability to make an emergency call when needed.

Our rural and remote members require certainty that mobile coverage is guaranteed for emergency services, education and functioning of communities. This should include residences, rural properties, along transport routes, in small communities and in locations prone to natural disasters. When emergencies arise such as cyclones, flooding, bush fires and health emergencies, landline phone services often fail, and it is imperative that other means of communication are available, especially for those living in areas that may be many kilometres from their nearest neighbour or next town. Mobile coverage has clear public safety, economic and social benefits for people living, working, educating and being educated and travelling in regional, rural and remote areas.

As mentioned above, power outages occur unexpectedly and frequently in rural and remote areas due to numerous causes including severe weather. These power outages can last for hours or even days. Consequently, it is imperative that the mobile network is still operational. There have been many occasions where natural disasters have resulted in power outages and a battery backup at a mobile tower has failed. There needs to be better monitoring systems to highlight any failing batteries prior to a disaster situation.

GAPS IN REGIONAL COMMUNICATIONS

Many of our families live in locations with limited or no mobile coverage. However, some members have achieved connections to the network through the use of equipment (aerials and boosters) which improve and enhance signal and connectivity, at their own, often extensive, cost. This is a unique situation for these remote locations and this and other distinctive situations need to be taken into consideration when applying any new mechanisms. Safeguards are required to ensure rural and remote residents are not disadvantaged or incur extra costs to receive equitable communications services.

Mobile Black Spots Program (MBSP)
ICPA (Aust) has been grateful for the acknowledgement of the need for increased service for remote and rural schools throughout the MBSP and the focus on schools in previous rounds. ICPA (Aust) believes the program should continue in an endeavour to expand the current mobile footprint and, in so doing, isolated rural and remote schools should remain as priorities.

Expansion of mobile coverage is critical in rural and remote Australia. Approximately 70% of the Australian landmass is not covered by the mobile footprint. The MBSP needs ongoing government funding and the mobile footprint needs to be extended.

The success of the MBSP has resulted in a patchwork of network coverage with a number of small gaps between each.

ICPA (Aust) considers that areas for future funding of the MBSP should be based on community input and believes nominations by Members of Parliament and local government should also be considered if they are lending support to community applications that are being put forward. Concerns have been raised that those communities that can financially contribute towards the installation of towers, equipment etc. may be prioritised over those who cannot. Some states and local communities do not have the means nor opportunity to seek joint assistance for securing Mobile Black Spot towers due to the demographics of where they are (some areas have no large businesses such as mines to assist them with funding) and the composition of their community and outlying area. However, there can still be a great need for a mobile tower in the area, particularly if the area is prone to natural disasters.

Where there is a mobile service there needs to be an improved system for the monitoring of the battery back-up capability. While there is a replacement program it is based on the age of the battery. This is not an accurate benchmark, and sometimes it is only when there is a disaster that it becomes apparent the battery back-up has failed.

A reliable, affordable, resilient mobile network service will go a long way to providing an alternative means of voice communication (meeting the requirement of two independent forms of delivery) if you are also on voice satellite. However, ICPA (Aust) notes, both services still require power to operate, problematic in some rural and remote locations.

Due to the vastness of our country, it is difficult to nominate specific areas for the priority of the installation of mobile services owing to so many locations being without service. There is no doubt about the need for the expansion of mobile services in order to enhance daily communication activity for these people.

Regional Tech Hub (RTH)
ICPA (Aust) welcomed the establishment of the RTH, following advocacy by our organisation and others of the need for effective and efficient communications support for regional, rural and remote customers.

There still remains confusion and a lack of knowledge within communities as to what communication services are available and accessible in their location. The independent and factual information provided by RTH offers valuable assistance to customers' understanding of relevant services and provides support to help people build up the skills to solve telecommunications issues. Telecommunications and technology are constantly changing and becoming more complicated.

ICPA (Aust) believes that this service needs to be retained and expanded and urge the Review Committee to recommend surety of ongoing and secure funding for the Hub's continuation.

ICPA (Aust) believes the following issues should be addressed to ensure the Hub can reach its full potential and maximise the benefit to rural and remote families and students:

- the need for increased awareness that the Hub is available

- expansion of hours to ensure home tutors preparing for distance education can access the service when needed i.e. early morning and later in evenings
- the increased provision of real time assistance from staff who have an understanding of the location and issues of customers
- the continued need for staff to be accessible, available and have experience in the on-the-ground situation
- the continued provision of a robust community network facility where people can learn from people, be advised of issues e.g. outages and receive support from others who are having similar experiences. An example could be a distance education home tutor who cannot login 10 minutes before a lesson making a post on social media and being able to be advised by other home tutors that there is an issue or that they too cannot log on.

GOVERNMENT INVESTMENT

ICPA (Aust) has welcomed the continued investment by the Federal Government that has helped bridge some of the gaps to accessing regional communications and to deliver improvements to the Australian communications network and acknowledge the following programs:

- Improving Mobile Coverage Round (IMCR) - to deliver improved mobile coverage and quality of service to 42 Target Locations of the Mobile Black Spot Program (MBSP).
- Mobile Network Hardening Program (MNHP) – to deliver over 1000 projects to strengthen the resilience of regional telecommunications infrastructure, including enhancement of the battery backup power to at least 12 hours at 467 base stations funded under the first two rounds of the MBSP. Additionally, funding will deliver over 532 resilience upgrades and grant funding for 386 projects to strengthen the resilience of regional telecommunications infrastructure, across regional Australia.
- Better Connectivity Plan for Regional and Rural Australia - $1.1 billion providing funding to rural and regional communities including:
    - the Mobile Black Spot Program (MBSP)
    - the Regional Connectivity Program
    - an independent national audit of mobile coverage to better identify black spots
    - Regional Tech Hub funding boost
    - NBN Co nbn Fixed Wireless and Satellite upgrade program
- School Student Broadband Initiative (SSBI) - to provide free home internet for up to 30,000 unconnected families with school aged students

Government and Stakeholder groups

ICPA (Aust) participates in a number of groups which are specifically focussed on rural and remote communications, including the Regional, Rural and Remote Communications Coalition (RRRCC). As the only organisation specifically addressing the educational needs of geographically isolated students, ICPA (Aust) believes these groups are an essential conduit for our organisation to voice the experiences and needs of our members and we believe these groups must be supported and maintained.

CONCLUSION

Equitable educational opportunities in rural and remote locations hinge upon the availability of high quality, reliable, affordable and adequate telecommunications. ICPA (Aust) welcomes the opportunity to provide comment to the *Regional Telecommunications Review 2024* to emphasise the key telecommunications issues and considerations which impact the education of geographically isolated students.

ICPA (Aust) are adamant that two sources of communications must be available as the sole reliance on one source not only impedes access to education, but also seriously impacts safety of life in a rural and remote setting.