



2024 Regional Telecommunications Review

ACCC Submission

July 2024

Acknowledgement of country

The ACCC acknowledges the traditional owners and custodians of Country throughout Australia and recognises their continuing connection to the land, sea and community. We pay our respects to them and their cultures, and to their Elders past, present and future.

Australian Competition and Consumer Commission

Land of the Ngunnawal people

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Executive summary

The ACCC welcomes the opportunity to make a submission to the 2024 Regional Telecommunications Review (the 2024 Review) regarding the telecommunications needs of consumers and small businesses in regional, rural and remote Australia, and the adequacy, reliability and equitability of telecommunications services in these areas.

The ACCC acknowledges the broad range of issues raised in the 2024 Review issues paper. This submission focuses on:

- consumer issues, including the need for improved consumer information and selling practices by retailers
- universal service arrangements
- challenges around mobile network investment and coverage in regional, rural and remote areas
- broadband service performance and reliability for regional consumers
- connectivity options during outages and natural disaster events, and
- the role of private and government investment in regional, rural and remote telecommunications.

The 2024 Review comes at an important time given the rapid technological and structural change across the telecommunications landscape, which presents both opportunities and risks for competition and consumer outcomes. Australia's mobile networks are now on their fifth generation, with each upgrade requiring significant industry and consumer investment. Continued NBN upgrades are providing more users with access to high-speed fixed broadband, while improvements to fixed wireless networks are showing benefits. Meanwhile, the emergence of Low Earth Orbit Satellites (LEOSats) has the potential to herald significant changes to the communications services available to Australians in the most remote and previously hard-to-service areas of the country.

During this period of significant technological change, it is important to focus on the impacts for consumers and small businesses. While industry grapples with deploying these technological advancements to supply more efficient and robust networks, consumers are also facing the many challenges of migrating to new technologies and services. It is essential that there are conditions – such as adequate information and protections – for consumers to be able to successfully transition to new technologies, and to prevent any widening of the digital divide for regional, rural, remote and First Nations communities. Regardless of the underlying technology, regional Australians are reliant on digital connectivity as an essential service to be able to achieve social inclusion, participate fully in the digital economy, access crucial healthcare and education services, and remain connected during times of natural disasters and emergencies. The ACCC has continued to receive a disproportionate number of complaints from regional, rural and remote areas – indicating these consumers are not being provided adequate quality telecommunications products and service.

Given the inherent limitations of coverage and performance in remote areas, consumers living in these locations need clear, accurate and comparable information – including relevant information at the point of sale – to make informed choices regarding their telecommunications services. The ACCC is concerned about the often-inadequate information being provided to consumers experiencing service migrations – such as those

affected by the impending 3G mobile network shutdown. The ACCC has also long advocated for the improved comparability and transparency of mobile network coverage maps, and we continue to be disappointed by industry reluctance to adopting common coverage methodologies and inputs.

The ACCC supports a re-consideration of the way universal services are delivered. With telecommunications services continuing to evolve, the review of the universal services arrangements should consider the utility of different technologies to meet consumer needs. The reformed universal services framework should also include appropriate consumer protections, including minimum standards. These standards should apply across universal services, regardless of the underlying technology, and should be well-defined, transparent and in line with evolving consumer and industry expectations.

The mobile services market has continued its rate of rapid change over recent years. The ongoing 5G rollout and planned 3G network shutdown have implications for overall coverage. The trend of mobile carriers divesting tower assets has also had an impact on market dynamics, with further updates to the Facilities Access Regime potentially required to help foster investment, competition and improved network coverage in remote areas.

While much of the country now enjoys access to high-speed fixed broadband infrastructure, there remains a significant portion of customers in rural and remote areas relying on legacy networks, or negotiating the migration to alternative wireless options. These customers require support to manage the ongoing transition and potential loss of redundancy options, and should not be left behind in terms of access to quality broadband.

The ACCC has found that Temporary Disaster Roaming is technically feasible and has the potential to help sustain mobile connectivity during emergency events. However, technical requirements need to be addressed including the need for increased network capacity and additional power reserves. Further investigation is required to understand the implications of new technologies – such as direct-to-device LEOSat services – for network resilience during times of natural disaster or emergency.

The commercial viability of connectivity in remote and sparsely populated regions continues to dictate many of the digital inequities faced by residents of these areas. Despite emerging technologies, cost remains a significant barrier to network investment. Targeted government investment will continue to be required to achieve improved telecommunications outcomes for regional consumers.

Role of the ACCC

The ACCC is the economy-wide competition regulator responsible for enforcing the *Competition and Consumer Act 2010* (Cth). We protect Australian consumers by fostering competitive, efficient, fair and informed Australian markets including telecommunications markets.

The ACCC has provided submissions to past Regional Telecommunications Independent Review Committees (RTIRCs), and has been engaged by the Government to assist in its response to recommendations stemming from previous RTIRC processes. Following the RTIRC's 2021 Review and its recommendations relating to mobile services and shared network access, the Minister for Communications directed the ACCC to conduct the Regional Mobile Infrastructure Inquiry.¹ The final report, provided to the Minister in June 2023, made 20 findings related to mobile towers, the associated regulatory framework, consumer experiences and the feasibility of temporary mobile roaming during natural disasters.

The ACCC undertakes a range of other initiatives which relate to telecommunications in both urban and regional areas – including the Measuring Broadband Australia program and providing industry guidance on broadband speed claims. The ACCC's enforcement priorities continue to include the promotion of competition and addressing misleading pricing and claims for essential services – including the telecommunications industry – by investigating and enforcing breaches of the Australian Consumer Law.²

The ACCC has met with the Committee on several occasions in the past to provide advice and assistance to Review processes. We are happy to support the RTIRC wherever possible and are available to discuss the issues outlined in this submission further if necessary.

¹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 17 June 2024.

² ACCC, [Compliance and enforcement priorities](#), March 2024, accessed 10 July 2024.

Consumer issues

Consumers and small businesses in regional, rural and remote areas face unique challenges in attempting to meet their telecommunications needs. These challenges include accessing information that is appropriate and specific for their geographic location, staying connected on networks which are susceptible to environmental conditions, and service affordability in areas where the cost of delivery is high. Remote First Nations communities face additional connectivity barriers, and continue to experience digital exclusion at a disproportionate rate.

Network operators and retailers hold the primary responsibility for making adequate and accurate information available to consumers, and to avoid incentivising or engaging in mis-selling. This responsibility includes providing reliable and comprehensive information to all consumers, while also providing relevant and specialised information to individual customers at the point of sale or during instances of service issues.

Since the last Review in 2021, the ACCC has continued to receive a higher proportion of telecommunications complaints from consumers in regional, rural and remote areas than those in urban centres – highlighting that more work needs to be done to support and protect regional consumers. Through our engagement with consumer advocacy groups, we also continue to hear about a range of telecommunications issues impacting regional, rural and remote consumers.

Connective literacy

Consumers benefit from independent sources of information regarding connectivity options

The 2021 Review found that regional consumers face challenges in accessing independent advice and improved connectivity literacy to assist them in making informed connectivity choices. These challenges continue to persist.

Consumers frequently rely on telecommunications service providers for information about what products and services they can access. This can result in regional consumers receiving limited information – driven by particular providers' services offered, incentives to sell certain products, and an inclination to provide information targeted at consumers in more populous areas. The lack of relevant information being disseminated by providers may also be attributed to a lack of competition in certain markets, information not being regularly updated for legacy networks, and providers failing to articulate the impacts of technological change for consumers.

The Regional Tech Hub – established as part of the Government's response to the 2018 Review – has provided a valuable source of centralised information and technical advice for regional consumers. Demand for the Regional Tech Hub appears anecdotally high, suggesting there continues to be a gap in the quality and factual reliability of information provided by telecommunications providers. The ACCC considers that the Regional Tech Hub remains a beneficial tool in the regions, and supports its continued funding to provide up-to-date service information and on-the-ground support for regional consumers.

We also recognise the valuable contribution of advocacy group 'Better Internet for Rural, Regional and Remote Australia' (BIRRR) as a source of reliable and independent information for rural, regional and remote telecommunications consumers.

Among the ACCC's initiatives to assist consumer literacy, we established the Measuring Broadband Australia program in 2017.³ This program aims to provide consumers with accurate and independent information about broadband performance to assist their purchasing decisions. It also provides participants with valuable and consistent information about their own connections over time. Of the program volunteers, 10% of the NBN fixed-line connections and 90% of the NBN fixed wireless connections reported on are from regional, rural and remote locations. The Measuring Broadband Australia program may be useful for regional and remote consumers, as it provides insights into where on-the-ground performance may be falling short of claims made by service providers.

The 2024 Review discussion paper identifies a lack of independent comparator tools for consumers of telecommunications services. The ACCC is aware that the Australian Energy Regulator implemented the 'Energy Made Easy' website in 2012 as a retail price comparison site for energy consumers in certain states.⁴ If the Committee is interested in exploring the comparator website model in further detail, it may wish to liaise with the Australian Energy Regulator to discuss any learnings from that process.

The ACCC also considers that consumers and small businesses need comparable service and coverage information to make informed decisions about the services that will meet their telecommunications needs. This is discussed further in the Mobiles services section of this submission.

Misleading and inaccurate information

Telecommunications companies may provide inadequate consumer information

While telecommunications operators are subject to the Australian Consumer Law prohibiting misleading or deceptive conduct, the ACCC has seen many occasions in which consumers have found information provided by telecommunications operators is inaccurate or inadequate for their specific needs.

The ACCC has heard consumer accounts about inadequate information from telecommunications companies regarding changes to services. For example, we have heard concerns about the accuracy and availability of reliable information for rural and remote consumers being migrated from Telstra's Next Gen Wireless Link broadband and home phone services as part of the 3G network shutdown. We understand Telstra has implemented measures to address some of these concerns. We expect that clear and adequate information continues to be provided to support customers throughout the migration from Next Gen Wireless Link to alternative services. During periods of change, consumers need sufficient support and information from the outset through to the completion of any transition.

Telecommunications providers are also more likely to provide consumers with information which is general in nature, rather than information that is specific to the individual consumer's needs. The ACCC considers retailers should be taking steps at the point of sale to ensure that the services to be supplied are fit for consumers' purposes.

³ ACCC, [Measuring Broadband Australia program](#), March 2024, accessed 17 June 2024.

⁴ Australian Energy Regulator, [Energy Made Easy](#), accessed 17 June 2024.

The current consumer protection code lacks incentives for industry compliance

The current Telecommunications Consumer Protections Code – and the draft Code currently under review – are voluntary in nature, with enforcement actions not possible for breaches of the Code. Instead, the Australian Communications and Media Authority (ACMA) can issue a direction to comply with the Code or a formal warning. Between January 2010 and June 2023, the ACMA issued 87 directions to comply with the Telecommunications Consumer Protection Code and 215 formal warnings.⁵ A breach of a direction by a Carriage Service Provider does make them liable for enforcement action by the ACMA, however maximum penalties for each breach are only \$250,000.

Given that this maximum penalty under the Telecommunications Consumer Protections Code is only possible at the end of a cumbersome two-step enforcement process, there is limited incentive for a Carriage Service Provider to comply with the consumer protections in the Code, where doing so will be costly or inconvenient for them. Further, the co-regulatory structure allows providers to write their own obligations, subject to the ACMA accepting and registering the draft Code. Higher financial penalties, a more efficient enforcement structure, and direct regulation by the ACMA would all help to strengthen consumer protections.

The ACCC addressed these issues among others in our recent response to the draft Telecommunications Consumer Protections Code package presented by the Communications Alliance. Overall, our response concluded that the ACMA should reject the draft Code and proceed to direct regulation.⁶

The ACCC continues to take enforcement action against misleading and deceptive conduct among telecommunications operators

As the regulator responsible for enforcing the *Competition and Consumer Act 2010* (Cth), the ACCC monitors and enforces compliance with telecommunications-specific legislation as well as the general consumer protection and anti-competitive conduct provisions in the Act and those protections afforded by the Australian Consumer Law.

Among the ACCC's enforcement priorities, we are committed to investigating and penalising misleading pricing and claims in relation to essential services, with a particular focus on telecommunications.⁷

⁵ UTS Centre for Media Transition, [The Enforcement of Telecommunications Consumer Protections](#), February 2024, accessed 12 July 2024, p. 72.

⁶ ACCC, [Telecommunications Consumer Protections Code Review – ACCC response to 20 May 2024 Draft](#), June 2024, accessed 1 July 2024.

⁷ ACCC, [Compliance and enforcement priorities](#), March 2024, accessed 17 June 2024.

Recent ACCC telecommunications enforcement actions

- In December 2022, the ACCC initiated Federal Court proceedings against Telstra for allegedly making false or misleading representations about upload speeds to residential broadband customers of its low-cost brand, Belong.⁸
- In November 2022, Telstra, Optus and TPG Telecom were ordered to pay penalties totalling \$33.5 million for making false or misleading representations to consumers over NBN internet plans, following Federal Court proceedings brought by the ACCC.⁹
- In May 2021, the Federal Court ordered Telstra to pay \$50 million in penalties in relation to unconscionable conduct in the sale of post-paid mobile products to Indigenous consumers, following an ACCC investigation.¹⁰

First Nations digital inclusion

Improving digital inclusion for First Nations communities remains a significant challenge

Remote First Nations communities continue to experience digital exclusion at a rate higher than other consumers in remote areas. The challenges in improving digital inclusion for First Nations groups are ongoing and complex, and encompass access to infrastructure and services, as well as digital literacy.

As part of the ACCC's 2022-23 Regional Mobile Infrastructure Inquiry, officers visited the remote Malak Malak community of Nauiyu in the Katherine region of the Northern Territory to listen to consumers about their telecommunications service experiences. Local residents shared the impacts of inadequate mobile network coverage and unreliable telecommunications services, which included diminished educational and healthcare outcomes, as well as public safety issues for the community.¹¹

We consider that consumer outcomes will improve if relevant information is more accessible for First Nations consumers. As outlined in the ACCC's June 2024 response to the draft Telecommunications Consumer Protections Code, we consider that the Code should include funding requirements to support existing interpreter services for use by First Nations consumers. In the 2021 Census, 76,978 Aboriginal and Torres Strait Islander Australians (9.5%) reported speaking one of 150 different Indigenous languages at home.¹² There are currently 104 NAATI-certified interpreters and translators practising in 30 Aboriginal and Torres Strait Islander languages across Australia. Providing assistance and funding to these groups would be of significant benefit to First Nations consumers, and would help minimise the risk of unsuitable products and services being sold to these consumers.

⁸ ACCC, [Telstra in court for alleged misleading representations about Belong broadband speed](#) [media release], December 2022, accessed 18 June 2024.

⁹ ACCC, [Telcos to pay a total of \\$33.5 million for misleading statements about NBN maximum speeds](#) [media release], November 2022, accessed 17 June 2024.

¹⁰ ACCC, [Telstra to pay \\$50m penalty for unconscionable sales to Indigenous consumers](#) [media release], May 2021, accessed 18 June 2024.

¹¹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, pp. 16-17.

¹² National Accreditation Authority for Translators and Interpreters (NAATI), [Indigenous Interpreting Project](#), July 2024, accessed 10 July 2024.

We also consider that consumer outcomes will improve for remote First Nations communities if government programs are developed in partnership with First Nations Australians and in line with the Priority Reforms outlined in the National Agreement on Closing the Gap, including:

- developing strong partnerships with formal partnership agreements
- supporting community-controlled organisations, including through reliable and consistent funding for these organisations to help build capacity
- ensuring government entities and the services they fund are culturally safe and responsive, and
- improving the data available for First Nations communities to help them make decisions in their best interest.¹³

In its Review of the National Agreement on Closing the Gap, the Productivity Commission outlined further actions to improve governments' implementation of these Priority Reforms.¹⁴

Similarly, where private telecommunications providers invest in First Nations communities, similar principles – including shared decision-making, ensuring services are culturally safe and responsive as well as improving the data available – should be implemented. Consumer outcomes will improve if providers explain obligations in a culturally and linguistically appropriate manner to the consumer, prior to the contract being signed. It is also important that digital literacy programs are community led, as highlighted by the Undertaking to the ACCC by Telstra to deliver a Community Services Program that includes training aimed at enhancing digital literacy and digital capabilities with the consent and agreement of First Nations community leaders.¹⁵

¹³ National Agreement on Closing the Gap Priority Reforms, [Priority Reforms](#), accessed 18 June 2024. The objective of the National Agreement is to enable Aboriginal and Torres Strait Islander people and governments to work together to overcome the inequality experienced by Aboriginal and Torres Strait Islander people, and achieve life outcomes equal to all Australians.

¹⁴ Productivity Commission, [Review of the National Agreement on Closing the Gap](#), February 2024, accessed 24 July 2024, p 5

¹⁵ ACCC, [Undertakings registers – Telstra Corporation Limited](#), November 2020, accessed 30 July 2024.

Universal service arrangements

Many consumers in regional, rural and remote areas are reliant on the universal services framework for the provision of baseline telecommunications services. This framework – currently under review as part of the Government’s Better Delivery of Universal Services process – comprises the Universal Service Obligation for fixed telephone and payphones, and the Statutory Infrastructure Provider regime for broadband delivery.

As outlined in the ACCC’s submission to the Government’s process, we acknowledge the need for the universal services framework to keep pace with rapidly changing technologies and the needs of modern consumers.¹⁶ At the same time, we encourage any changes to prioritise consumer safeguards, accessibility and affordability – particularly so those living in remote locations are not left behind due to their geography.

While the number of Telstra legacy copper services in operation continues to decrease over time, there remain a significant number of rural and remote consumers who rely on the copper network to provide their universal voice service. As of March 2024, Telstra still maintained over 409,000 legacy copper services, of which around 311,500 (76%) were voice-only services without broadband. Of these services, 56% are located in the most remote Exchange Service Areas, and 25% in regional centres.¹⁷

If the Universal Service Obligation for voice services is to be reformed to incorporate fixed wireless or LEOSat technology, these services must meet the reliability standards required by consumers, with transparent reporting against well-defined standards. The ACCC considers that current consumer safeguards are not fit for purpose, and would need to be significantly strengthened – with a particular focus on vulnerable and geographically remote consumers – before universal service reforms are implemented or fast-tracked.

Universal service arrangements act as a safety net for access to essential telecommunications services. As such, the ACCC considers that consumers should not be migrated to an alternative service unless it meets or exceeds existing standards.

Consumer safeguards

Service reliability and performance remains an issue for consumers in regional areas

Consumers expect their universal voice services to provide a high level of performance and reliability. This is particularly important for regional, rural and remote consumers who may not have access to alternative telecommunications options.

Data from the Telecommunications Industry Ombudsman shows that complaints relating to landline phone services reduced by 38% between FY 2022 and 2023, which, while encouraging, may be largely attributable to the continued reduction of landline phone usage across the population. The data also highlights that 85% of landline complaints received during 2023 related to “no or delayed action by provider” or “no phone service” – suggesting that consumer safeguards remain critical for users of fixed phone services.¹⁸

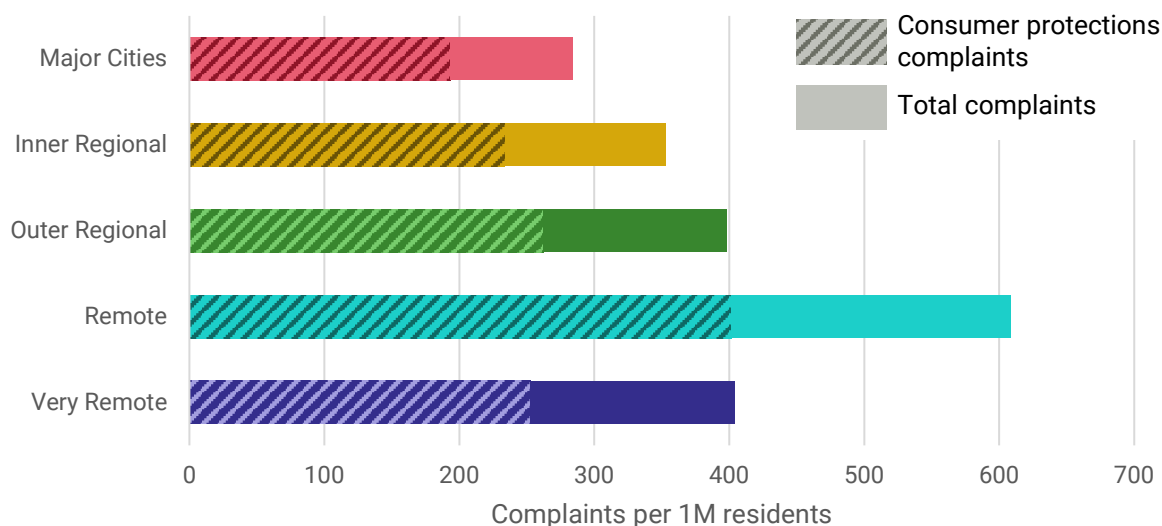
¹⁶ ACCC, [Better Delivery of Universal Services – ACCC Submission](#), March 2024, accessed 17 June 2024.

¹⁷ ACCC, [Snapshot of Telstra’s customer access network as at 31 March 2024](#), April 2024, accessed 3 June 2024.

¹⁸ Telecommunications Industry Ombudsman, [Annual Report 2023](#), 11 October 2023, accessed 3 June 2024.

Further, the ACCC’s own complaint data reinforces the importance of telecommunications consumer safeguards for regional consumers. For the period July 2021 to June 2024, the ACCC received 39% more telecommunications consumer protections complaints (per million residents) from regional, rural and remote consumers compared to consumers residing in major cities. As shown in Figure 1, consumers living in less accessible parts of Australia (designated Remote, Very Remote and Outer Regional areas)¹⁹ submitted the highest proportion of complaints during this period.

Figure 1. ACCC telecommunications complaints received – by Remoteness Area – 1 July 2021 to 30 June 2024



Source: ACCC Infocentre complaints data.

Note: Remoteness Area is defined by applying postcode data to the Australian Statistical Geography Standard (ASGS) Edition 3, as published by the Australian Bureau of Statistics.

Standards should be well-defined and in line with consumer and industry requirements for reliability

The ACCC considers clear and transparent performance standards should be set and reported on under the Universal Services Obligation, including the current benchmarks outlined in the Customer Service Guarantee and Priority Assistance. Currently, Telstra provides quarterly reports on its Customer Service Guarantee compliance according to each Exchange Service Area. For the March 2024 quarter, faults rectified within the Customer Service Guarantee time were around 40% of the total faults reported.²⁰

Telstra’s network availability report for April 2024 indicated that 97.78% of its nationwide services under the Customer Service Guarantee had no faults reported for the month.²¹ However, Telstra’s Q1 2024 Customer Service Guarantee compliance report revealed that 25% of Exchange Service Areas across the copper network had at least 1 fault during the period for every 10 services in operation. Of the Exchange Service Areas with reported faults during the quarter, over a third had less than 90% of faults rectified within timeframes

¹⁹ Australian Bureau of Statistics, [Remoteness Areas – Australian Statistical Geography Standard \(ASGS\) Edition 3](#), 21 March 2023, accessed 3 June 2024.

²⁰ Telstra, [Network Reliability Framework for fixed voice services](#), April 2024, accessed 4 June 2024.

²¹ Telstra, [Network Reliability Framework for fixed voice services](#), April 2024, accessed 4 June 2024.

specified under the Customer Service Guarantee, while almost a quarter of Exchange Service Areas with reported faults had none of their faults rectified within those timeframes.²²

These figures suggest that while Telstra is compliant with the Customer Service Guarantee on an aggregate level, end-users in a significant number of Exchange Service Areas experience inadequate fault rectification. These end-users are likely to be located in hard-to-service areas, resulting in consumers experiencing higher levels of inequitable access based on the remoteness of their location.

The current Telstra Universal Services Obligation Performance Agreement holds Telstra to high level and aggregated performance standards, and ensures Telstra offers the Customer Service Guarantee and Priority Assistance. However, Telstra's performance under these standards is not communicated in a format accessible to customers in understanding their own situation. This can leave consumers unclear on what they are entitled to, and with no clear pathway to recourse when benchmarks are not met. Standards should be defined and set in consultation with consumers and industry, and could include metrics such as service uptime, voice latency and remediation outcomes. Importantly, while aggregate performance standards are useful for reporting, there can be cases where multiple instances of repeated below-benchmark performance affects the same customer or region.

Standards reform should also provide more robust protections for consumers impacted by ongoing failures to comply with the Customer Service Guarantee in specific regions or Exchange Service Areas. Revised standards should consider the distribution of any below-benchmark compliance to ensure specific consumers – such as those in remote locations – are not repeatedly being left worse off.

Ultimately, the provider of the Universal Service Obligation services should be held accountable to these standards, and their performance should be reported in a transparent manner. Clearly communicating standards to consumers along with providing and communicating clear avenues for recourse would improve accountability for a Universal Services Obligation provider, and provide incentive for them to meet new and existing standards.

Additional consumer safeguards will be required as part of reformed universal service arrangements

Households and businesses benefit from access to reliable networks that are available when needed, and from services that perform to expectations in terms of timeliness and effectiveness of connections and remediations – including the keeping of appointments – amongst other aspects of service delivery.

In the ACCC's view, network availability should be a key focus for policy and regulatory development given the growing potential for significant outages. Measures for consideration would include those that:

- make available real-world data to demonstrate the incidence and drivers of all outages on networks
- efficiently boost network resilience, especially for networks in regional, rural and remote areas, and

²² Telstra, [Regional service performance](#), April 2024, accessed 4 June 2024. The referenced material represents ACCC analysis of Telstra's performance information reports.

- reduce the impact of scheduled outages, including through timely and reliable notification processes.

Further, we consider that regulated service levels such as those specified under the Customer Service Guarantee should provide an effective baseline for all households and small businesses. The ability for service providers, other than Telstra, to routinely contract out of these standards is a significant limitation to this objective. Hence, we would support reviewing regulated standards so that they specify a suitable baseline, and significantly winding back the circumstances in which service providers can avoid providing compensation where it is not achieved.

As telecommunications networks shift away from Telstra-owned infrastructure, it is appropriate to assess whether effectively contracting a single retail provider to maintain the guarantees is an appropriate mechanism to ensure customers have access to minimum connection and fault rectification standards.

Wholesale service standards are a significant input to many aspects of service delivery as only network operators can authorise the network activities needed to maintain and augment the network and connect and assure services supplied over it. It is therefore important that arrangements for future customer service guarantee safeguards at both the wholesale and retail level are appropriately aligned such that any safeguards that are imposed at the retail level are supported at the wholesale level. This would allow the safeguards to operate effectively and consistently and ensure that costs are borne by the responsible parties over the supply chain. The ACCC notes that most wholesale networks provide voice telephony services by alternative means such as Voice over Internet Protocol (VoIP) and over-the-top applications. The ACCC therefore considers it would be appropriate to align broadband standards with voice standards where appropriate.

Wholesale service standards for the NBN can be set through adjusting the benchmark service standards set under the NBN Special Access Undertaking. Under the Special Access Undertaking, NBN Co proposes benchmark service standards to apply in each regulatory cycle. It is scheduled to next propose standards in July 2025 to apply for the next regulatory cycle commencing in July 2026. The ACCC can accept the standards as proposed or specify different benchmark standards to apply.

More generally, minimum wholesale service standards can also be set via Statutory Infrastructure Provider determinations issued under the Telecommunications Act or via Part XIC of the *Competition and Consumer Act 2010* (Cth) in the case of regulated services such as the Superfast Broadband Access Service.

Network operators can also offer service standards that exceed the applicable regulated benchmarks at any time, either as part of its standard offering or via enhanced service levels that are available for an additional fee.

The ACCC considers that future customer service guarantee safeguards should set out clear delineations of responsibility, where possible, to ensure that obligations fall on the entity who is best placed to address the issue, and to maximise outcomes for end users. This should be informed by consultation with retail service providers, consumer advocacy groups, and the Telecommunications Industry Ombudsman. These stakeholders are likely to hold insights into the extent to which end user complaints about faults and connections derive from wholesale rather than retail issues, and are able to provide insights into the broader end-user experience.

Universal voice services

VoIP over fixed wireless could potentially provide a suitable alternative to copper landline connections

While fixed wireless is not currently employed to deliver universal voice services, recent investments and upgrades have improved coverage and speeds across the network – making fixed wireless a more suitable option for facilitating VoIP services.

While VoIP services over the NBN fibre network offer high quality telephone calls that are equivalent to or better than a copper-based landline service, the performance and reliability of fixed wireless technology are more affected by environmental factors such as landscape obstructions, rain fade, as well as the location of customer hardware in relation to transmission towers. In addition, VoIP services are affected by power outages, whereas copper landline connections can continue to operate during a power outage at the end-user's premises.

As the current copper network is progressively decommissioned, the NBN fixed wireless network continues to increase its footprint in terms of household coverage. As of May 2024, NBN's fixed wireless rollout had achieved "ready to connect" status at over 701,000 premises.²³ In comparison, Telstra's copper customer access network had approximately 409,000 remaining services operating as of March 2024.²⁴ In addition, NBN Co's ongoing fixed wireless upgrade program plans to expand the network's existing footprint by at least 50% – enabling approximately 120,000 former satellite-only eligible premises to access NBN fixed wireless services.²⁵

As last recorded by the ACCC's Measuring Broadband Australia program in March 2024, latency (the time required for a data packet to reach its destination) for NBN fixed-line services was 10.5ms averaged across major retail service providers, compared to 43.4ms over the fixed wireless network.²⁶ While inferior to the fixed-line network in terms of latency, these figures for fixed wireless are still within the acceptable range for high quality voice calls.

In terms of service availability, the fixed wireless networks deployed in regional areas appear to have a higher proportion of outages in comparison to fixed line services. Across Measuring Broadband Australia's latest two reports, the average daily outages per service (lasting longer than 30 seconds) for NBN fixed-line services were 0.29 averaged across major retail service providers compared with the average of 0.34 for fixed wireless.²⁷

The affordability of fixed wireless services is another important consideration in assessing its suitability to deliver universal voice services to regional areas. While pricing for VoIP services over fixed wireless may change as the market develops, consumers can currently obtain VoIP over fixed wireless for a comparable rate to VoIP over the copper or NBN fixed-line network. For example, Telstra currently offers a stand-alone home phone service for a flat price, regardless of the connection technology.

²³ NBN Co, [NBN Co Weekly Progress Report](#), 30 May 2024, accessed 5 June 2024.

²⁴ ACCC, [Snapshot of Telstra's customer access network as at 31 March 2024](#), April 2024, accessed 3 June 2024.

²⁵ NBN Co, [NBN's Fixed Wireless and Satellite Upgrade Program](#), November 2022, accessed 17 June 2024.

²⁶ ACCC, [Broadband performance data](#), March 2024, accessed 4 June 2024.

²⁷ ACCC, [Broadband performance data](#), March 2024, accessed 4 June 2024.

The ACCC acknowledges the ongoing technical trials to assess the effectiveness of delivering voice services over fixed wireless networks. We support both reducing the scope of the copper continuity agreement and increasing the delivery of universal services over the fixed wireless network if it can deliver VoIP against standards set for current voice services.

Careful consideration is required before relying on LEOSat technology to deliver universal voice services

As outlined in the Government's Better Delivery of Universal Services discussion paper, the suitability of LEOSats to deliver universal voice services is being considered due to the recent and rapid advancements of the technology, coupled with the imminent arrival of new entrants to the Australian LEOSat market. Despite the potential surrounding LEOSat technology, its suitability to deliver universal voice services requires further examination.

The reliability and performance of voice services over LEOSat are broadly considered inferior to that of a copper-based landline service. While LEOSats are capable of offering an adequate VoIP connection in optimal conditions, they suffer from reliability factors such as drop-outs due to satellite handoffs, while signal quality has the potential to be impacted by atmospheric conditions.

LEOSats offer much lower latency – or delay time – than geostationary satellites. As of June 2024, Starlink's advertised latency was between 24ms and 66ms depending on location within Australia. However, these metrics only include the 20th to 80th percentiles of user data, meaning that customers using Starlink in remote locations may experience higher levels of latency.²⁸

A key advantage of LEOSat technology is its breadth of coverage across vast landmass areas such as Australia. Large portions of the continent fall outside the boundaries of the NBN and copper networks, whereas LEOSats can offer close to 100% coverage – provided the hardware in use has a clear line of sight to most of the sky. Consequently, the inclusion of LEOSat technology in a framework for universal voice services has the potential to provide improved coverage for the most remote consumers. This includes helping to close the digital inclusion gap for many First Nations communities, while noting that there are differing views among First Nations communities regarding the impact of satellites on astronomical observations and cultural connections with the night sky.²⁹

If LEOSat-based solutions are to be considered for providing universal voice services to remote communities, it is also essential that they are affordable for vulnerable consumers who may not have alternative technology options.

The ACCC encourages continued technical trials to assess the capabilities of LEOSats to contribute to the universal services framework, while cautioning that the technology may have inherent limitations in providing universal fixed voice services which are equitable with other connection types. Consumer groups have also voiced concerns regarding potential customer vulnerability when dealing with internationally owned companies such as Starlink, due to their limited local accountability and oversight.

Importantly, consumers – particularly those in remote locations who may have limited voice service alternatives – should not be moved away from legacy technologies to an inferior service.

²⁸ Starlink, [Availability Map – Latency](#), June 2024, accessed 6 June 2024.

²⁹ First Nations Digital Inclusion Advisory Group, [Initial Report](#), October 2023, accessed 6 June 2024, p. 23.

Public phone infrastructure

Payphones remain an essential service for vulnerable consumers and remote communities

Telstra's provision of public payphones under the Universal Service Obligation continues to play an important role in the accessibility of telecommunication services for vulnerable Australians. This role has only grown in importance since Telstra's 2021 decision to make local and national calls free from payphones, with a more-than-threefold increase in usage from FY 2020-21 to FY 2022-23.³⁰

Payphones particularly offer an essential communication link for many remote and First Nations communities – highlighted by the fact that 4 out of the 5 most used payphones in the country are located in regional and remote parts of the Northern Territory.³¹ Payphones also represent a vital redundancy for such communities when primary telecommunications networks are out of service.

The introduction of free Wi-Fi capability across select enabled payphones has further increased their value to vulnerable and remote consumers – providing access to data for some communities with limited connectivity options, or in circumstances such as power outages or natural disasters.

Consumer groups have also raised the importance of payphones to people in vulnerable social situations – including those unable to afford voice, mobile or broadband services. First Nations communities, young people without mobiles, and homeless people are especially likely to rely on payphones, as are those on lower incomes more generally. People may also find themselves in specific instances where payphones are the only available option for communication, including natural disasters, power outages, or when fleeing unsafe situations such as domestic and family violence. Telstra's call statistics reinforce the importance of payphones to vulnerable community members: in the 12 months to August 2023, calls from payphones increased to a number of support services, including Lifeline (30% increase), Salvo's Assistance Line (15%), Emergency (15%) and Police (34%).³²

In this context, access to payphone infrastructure for regional, rural, remote and First Nations communities is highly important. The ACCC supports the continued provision of payphones within the universal services framework, with no reduction in footprint.

³⁰ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, [Better delivery of universal services – Discussion Paper](#), October 2023, accessed 6 June 2024, p. 5.

³¹ Telstra, [Free payphones have become a lifeline for Australians in need](#), August 2023, accessed 6 June 2024.

³² Telstra, [Free payphones have become a lifeline for Australians in need](#), August 2023, accessed 6 June 2024.

Mobile services

As mobile connectivity has become the most ubiquitous form of modern communication, those living in regional, rural and remote areas continue to encounter barriers to accessing equitable mobile services. The core issue – a lack of investment and competition in many remote locations – can lead to poor consumer outcomes such as unaffordability, coverage black spots, network congestion and limited capacity.

The ACCC's 2022-23 Regional Mobile Infrastructure Inquiry found that regional consumers report a lower quality of mobile services than urban consumers. Following extensive consultation, the final report detailed that mobile network operators are continuing to fail to meet consumer demand for mobile services in these areas, particularly in relation to coverage and capacity. In addition, the inquiry's consumer survey showed that around 78% of respondents rated the mobile coverage in their area as poor, very poor, or none.³³

Mobile coverage and capacity demands will only increase for regional areas in the coming years, as many regional centres experience an influx of internal migration and seasonal visitors. Networks will also need to meet the needs of the burgeoning number of Internet of Things applications, and the requirements of an increasingly digital approach to agriculture. The Government's National Audit of Mobile Coverage may provide a clearer picture of where network coverage is not likely to meet this growth in demand.

Providing the right incentives for mobile network operators to invest in remote areas is an ongoing challenge for policy makers. However, targeted government co-contribution infrastructure programs with appropriate access models can help provide the right conditions for investment and competition. These conditions can also be improved by structural change – as may be possible through the Government's current review into the effectiveness of telecommunications facilities and tower access regulations.

Regulated domestic mobile roaming has also been explored as a solution to mobile coverage issues in underserved areas. While past ACCC investigations have found that declared roaming would likely undermine the incentives for investment by mobile network operators, contemporary evidence is required to determine whether regulated domestic roaming would promote the long-term interests of end-users. The emergence of direct-to-device LEOSat technology is a development which will likely impact the competitive dynamics for remote mobile coverage – with consumer services set to rollout over late 2024 and 2025, starting with SMS.

Mobile infrastructure in regional, rural and remote areas

Targeted government co-contribution infrastructure programs can improve mobile options for regional communities

Due to the challenging commercial viability of providing infrastructure in regional, rural and remote areas, government co-contribution programs play a key role in improving regional coverage. These programs should be targeted and have a clear objective to promote competition and maximise the choice of providers.

³³ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, p. 5.

Co-contribution programs have, in some cases, benefitted users of only one network and have thus hindered competition. The ACCC's Regional Mobile Infrastructure Inquiry found that Telstra was the major beneficiary of co-contribution programs, and only 9% of Mobile Black Spot Program active sites had more than one mobile network operator operating on them.³⁴ While earlier rounds of the Mobile Black Spot Program provided for co-location on funded sites, the extent to which the mobile network operators actually co-locate on funded sites has been limited.

Co-contribution programs that mandate open-access, neutral host or active sharing models are also more likely to effectively promote competition than co-location models. In recent years, there has been a shift in the focus of co-contribution programs towards these models. For example, the NSW Government's ongoing Regional Digital Connectivity Program seeks to improve mobile connectivity across regional NSW through an Active Sharing Partnership Program, and has established 2 proof-of-concept active sharing mobile sites in Wilcannia and Brewarrina.³⁵

However, the Regional Mobile Infrastructure Inquiry heard concerns that there are practical challenges in the use of active sharing models to promote multi-carrier solutions as part of these programs, including the reluctance of some mobile network operators to be involved. This is a challenge that governments need to consider in designing such programs.

Co-contribution programs still rely on investments or participation by private companies, and as such governments need to provide sufficient incentives for these parties to participate. As co-contribution programs increasingly target more remote and underserved areas, as well as using active sharing models that do not provide an exclusive competitive advantage to one party, it is possible that more government funding is required to encourage participation.

Another consideration is that active sharing arrangements could potentially raise issues under Part IV of the *Competition and Consumer Act 2010* (Cth), which prohibits anti-competitive conduct. However, the authorisation framework provides a well-established mechanism by which an arrangement can be examined and potentially enabled, whether or not it is part of a government co-contribution program.

The Facilities Access Regime could better serve regional communities

The ACCC's 2022-23 Regional Mobile Infrastructure Inquiry found that the Facilities Access Regime within the Telecommunications Act – which enables infrastructure sharing between telecommunications carriers and infrastructure providers – is no longer fit for purpose.³⁶

Following the recent trend of mobile network operators divesting tower assets into non-carrier companies, the Regional Mobile Infrastructure Inquiry report encouraged the Government to consider whether the Facilities Access Regime should apply to all mobile network infrastructure providers, regardless of whether they hold a carrier licence or form part of a group which includes a carrier company.³⁷

The resulting current Government review into the effectiveness of telecommunications facilities and tower access regulations has the potential to improve the competitive

³⁴ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, p. 72.

³⁵ Department of Regional NSW, [Regional Digital Connectivity Program – Mobile Coverage](#), accessed 20 June 2024.

³⁶ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, p. 68.

³⁷ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, p. 68.

dynamics surrounding infrastructure in regional locations, and therefore consumer outcomes in these areas as well.

Regional mobile infrastructure sharing deals

- In December 2022, the ACCC decided not to authorise a regional mobile network sharing arrangement proposed by Telstra and TPG. The ACCC noted some potential benefits arising from the proposal, but considered that the arrangement would likely lead to less infrastructure-based competition which would leave consumers – especially those in regional areas – worse off over time.³⁸
- In June 2023, the Australian Competition Tribunal affirmed the ACCC’s decision not to grant authorisation for the proposed network sharing arrangement.³⁹
- In June 2024, Optus and TPG sought ACCC merger clearance for three inter-related agreements in respect of a spectrum authorisation agreement, a regional network sharing agreement, and a site transfer agreement.⁴⁰ This proposed arrangement is still under assessment at the time of submission.

Mobile coverage in regional, rural and remote areas

Competitive dynamics in regional and remote areas limit incentives for mobile networks to improve coverage

The ACCC recently examined how competitive dynamics in the mobile services market are influencing the provision of mobile coverage during the 2022-23 Regional Mobile Infrastructure Inquiry.

The ACCC understands that building and upgrading mobile networks is highly capital intensive, and mobile network operators have historically found it more difficult to expand networks in more remote and less densely populated areas.

However, the ACCC also found that Telstra’s enduring competitive advantage in regional areas has the potential to undermine other mobile network operators’ incentives to continually invest in expanding coverage into areas where there is currently limited infrastructure competition.⁴¹ Telstra’s advantage is a result of the sheer scale of its infrastructure in regional Australia as well as its first mover advantage in the deployment of 5G technology. Telstra has also benefitted from greater spectrum holdings, as well as policies that have had adverse effects on the network costs of Optus and TPG. Optus and TPG Telecom face significant costs in upgrading their networks to 5G as a result of the 5G

³⁸ ACCC, [Telstra Corporation Limited and TPG Telecom Limited proposed spectrum sharing](#), December 2022, accessed 27 June 2024.

³⁹ Australian Competition Tribunal, [Applications by Telstra Corporation Limited and TPG Telecom Limited \(No 2\) \[2023\]](#), June 2023, accessed 27 June 2024.

⁴⁰ Under this proposed agreement, TPG Telecom would authorise Optus to use certain regional spectrum, while Optus would provide TPG Telecom with network services in certain regional areas. TPG Telecom will use the network services to provide 4G and 5G services in regional areas covered by the agreements.

⁴¹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 20 June 2024, p. 79.

Security Guidance and the need to replace existing Huawei equipment used in their networks.

These dynamics have made it more difficult for mobile networks to compete on network investments in regional Australia. To date, Telstra has a significant lead in the rollout of 5G throughout Australia and remains the only available mobile service provider in many rural and remote areas. Without a competitor threatening Telstra's network coverage leadership, there is less incentive for Telstra to broaden and densify its coverage in rural and remote areas. Should this dynamic be left unbroken, consumers in regional Australia – and those that value significant coverage in those areas – will continue to have limited choice in mobile service providers.

The ACCC previously investigated regulatory options to improve choice of mobile service provider for regional and remote areas

During 2016 and 2017, the ACCC held a public inquiry about whether to declare a domestic mobile roaming service, which would enable mobile network operators to access the network of another operator outside their own coverage areas.⁴² The ACCC found at the time that declared mobile roaming would not lead to improved coverage for regional Australia. While declared mobile roaming could deliver some benefits by increasing the choice of providers in areas where there is limited infrastructure competition, the evidence at the time indicated that it would undermine commercial incentives to invest in expanding and improving coverage in these areas, as doing so would no longer provide any competitive benefit for an operator.

It is not possible to determine whether declared mobile roaming would promote the long-term interests of end-users at a given point in time without conducting an inquiry and having regard to evidence. However, it is clear that any such inquiry would need to have regard to the development of the LEOSat direct-to-device services and its likely impact on the market.

LEOSat technology has the potential to provide improved and extensive coverage in regional and remote Australia

LEOSat technology, which is already being used for mobile backhaul in regional areas, is expected to be used to provide direct-to-device mobile services that can augment terrestrial mobile coverage. The ACCC considers that the advent of LEOSat direct-to-device services in Australia has the potential to impact the competitive dynamics in the mobile services market by allowing mobile network operators to extend service coverage beyond their terrestrial network. As the technology is in its infancy, it is unclear to what extent it can provide a viable alternative to terrestrial mobile coverage and bridge the geographic coverage gap between mobile network operators. It may have the potential to reinvigorate infrastructure-based competition, and create incentives to invest in improving the terrestrial mobile network in areas where terrestrial coverage is poor.

The ACCC is closely monitoring the development and deployment of LEOSat direct-to-device technology in Australia, which is mainly being delivered through partnerships between mobile network operators and LEOSat operators.⁴³ For the use of LEOSat direct-to-device technology to promote the long-term interests of end-users of mobile services, the ACCC considers it is important that this technology is being deployed in a manner that promotes

⁴² ACCC, [Domestic Mobile Roaming Declaration Inquiry 2016](#), October 2017, accessed 20 June 2024.

⁴³ For instance, [Optus](#) has announced a partnership with SpaceX to offer direct-to-mobile services from late 2024. [Telstra](#) has also announced it is working with Lynk Global to explore and test this technology.

competition rather than entrenches any existing market power or competitive advantage. In particular, the ACCC considers that all mobile network operators must have the opportunity and capability to augment their terrestrial mobile network with LEOSat direct-to-device services to compete with each other.

It is also important to note that many consumers are unfamiliar with emerging services such as LEOSat direct-to-device services. While this technology will likely bring significant benefits – particularly given that it can work on unmodified smartphones as part of a normal mobile plan – it is important that consumers understand any limitations of the technology so they are able to make informed choices when the services become available on the market. Informed consumer decision-making is key to an effective competitive process.

Consumers need comparable service and coverage information

The ACCC has long advocated for better transparency and comparability of mobile network coverage information. During the ACCC's 2016 Domestic Mobile Roaming Declaration Inquiry, we heard from regional consumers about the inadequacy of their mobile services and mobile coverage information. In response to that inquiry, the ACCC released a supplementary paper that outlined several measures to address regional mobile issues. One of the key measures in that paper was the need for greater transparency regarding network quality and coverage information.⁴⁴

The ACCC continues to hear consumer concerns about mobile coverage maps, including during the recent 2022-23 Regional Mobile Infrastructure Inquiry.⁴⁵ Mobile coverage maps – and associated coverage claims based on those maps – present predicted coverage. The methodologies used by mobile network operators to predict their coverage are not transparent, and there is no standardised methodology with agreed input parameters being used for this purpose. Given this lack of industry standards, mobile network operators are free to use differing methodologies or assumptions in predicting coverage. As a result, consumers face difficulties in comparing coverage maps across carriers, which impacts their ability to select a mobile service provider that meets their individual needs. The need for coverage comparability is more pronounced for the many consumers who live, work, or otherwise travel to regional, rural, and remote areas where there are significant differences in the mobile coverage provided by the mobile network operators.

As outlined in the ACCC's June 2024 response to the draft Telecommunications Consumer Protections Code, we consider that the Code should obligate Carriage Service Providers advertising mobile services to prominently note that coverage maps and claims refer strictly to outdoor coverage.⁴⁶ Comparability is key to informed decision-making for consumers, governments and regulators. However, none of these parties hold a complete picture of nationwide coverage. Pursuant to our record keeping rule powers, the ACCC collects some telecommunications coverage and infrastructure data for the specific purposes of monitoring industry investment and informing regulatory decision-making. However, the utility of this information to provide transparency can be limited in cases where comparability is not possible.

The ACCC considers that published coverage maps should be comparable across mobile networks, and that mobile network operators be required to use common methodologies

⁴⁴ ACCC, [Domestic Mobile Roaming Declaration Inquiry 2016 – Regional mobile issues paper](#), October 2017, accessed 10 July 2024.

⁴⁵ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 17 June 2024, p. 6.

⁴⁶ ACCC, [Telecommunications Consumer Protections Code Review – ACCC response to 20 May 2024 Draft](#), June 2024, accessed 1 July 2024, p. 12.

and input parameters in producing maps. We continue to be disappointed by industry's reluctance to ensure more comparable coverage information by adopting a more standardised approach to producing coverage maps.

In response to the recommendations of the 2021 Review, the Government is currently conducting a National Audit of Mobile Coverage, which is supported by the ACCC. The audit is a significant development that will help assess the accuracy of the coverage maps, and may be useful in informing the development of common methodologies and inputs for preparing consistent mapping across mobile network operators.

ACCC collects industry and market information through telecommunications record keeping rules

- Under powers pursuant to s 151BU of the *Competition and Consumer Act 2010* (Cth), the ACCC can make record keeping rules to compel telecommunications providers, carriers and companies to lodge relevant reports and information.⁴⁷
- Record keeping rule information is protected under s 155AAA, and may only be disclosed in certain circumstances, such as by consent, or under a s 151BU disclosure process.
- The ACCC's current telecommunications record keeping rules include those relating to infrastructure asset locations, Telstra's customer access network, internet activity metrics, NBN services in operation and NBN service quality, among others.
- Mobile coverage maps are disclosed as part of the ACCC's annual Mobile Infrastructure Report publication,⁴⁸ and the locations of mobile sites are also publicly accessible via the Radio Frequency National Site Archive.⁴⁹
- The benefits of disclosing other record keeping rule infrastructure maps held by the ACCC to government bodies or end-users has not been considered, and network operators have previously opposed disclosure requests on commercial and security grounds.

3G mobile network shutdown

Consumers need adequate support to navigate the 3G mobile network shutdown

The planned 2024 shutdown of 3G mobile networks are commercial decisions of the mobile network operators. While transitions such as the 3G shutdown can be inevitable due to ongoing technological progress within the telecommunications industry, it is essential that consumers – especially those with specific needs such as rural and remote residents – be adequately prepared for the impacts of change and supported throughout the process. Such support should entail the provision of clear and accurate information to customers on what

⁴⁷ ACCC, [Telecommunications industry record keeping and reporting rules](#), accessed 19 June 2024.

⁴⁸ ACCC, [Mobile Infrastructure Report 2023](#), November 2023, accessed 19 June 2024.

⁴⁹ AMTA, [Radio Frequency National Site Archive](#), accessed 19 June 2024.

the changes mean for them, including how their individual devices and services will be impacted.

The ACCC does not have any regulatory powers specifically in relation to the 3G mobile network shutdown itself or issues surrounding device compatibility. However, in our role as the agency responsible for enforcing the Competition and Consumer Act, our role is to ensure that businesses are complying with consumer fair trading and competition laws as the network closures progress. This includes ensuring that businesses are not engaging in misleading or deceptive conduct and meeting their obligations under the Consumer Guarantees provisions. We have reinforced this message in our engagement with businesses (including mobile network operators, online traders and industry association) over recent months.

Broadband services

Access to fast and reliable broadband is increasingly essential for consumers and small businesses due to a number of factors, including the rise in working from home. For regional, rural and remote consumers, broadband services are even more crucial due to the increased delivery of education and healthcare services on digital platforms, and for ensuring digital access to government and other essential services such as online banking.

Following completion of the NBN initial rollout in late-2020, attention has turned to ongoing network investments – most notably for regional areas via NBN Co’s fixed wireless and satellite upgrade program. Private sector investment in LEOSat and wireless networks have the potential to provide additional consumer options in regional and remote communities – notwithstanding reliability and redundancy risks which persist for users of some alternative services.

Despite the continued migration of users from Telstra’s customer access network to the NBN, there remain a significant number of consumers who still rely on their copper connections. As part of a public inquiry into the declaration of fixed-line services, the ACCC found in March 2024 that extending the expiry date of the declaration of wholesale Asymmetric Digital Subscriber Line (ADSL) for a further 5 years would promote the long-term interests of end-users. The inquiry’s final report outlined that while viable alternative services would be expected to emerge over time, extending the declaration would be likely to promote competition outside the NBN fixed-line footprint by enabling access seekers to continue to utilise capacity in Telstra’s customer access network.⁵⁰

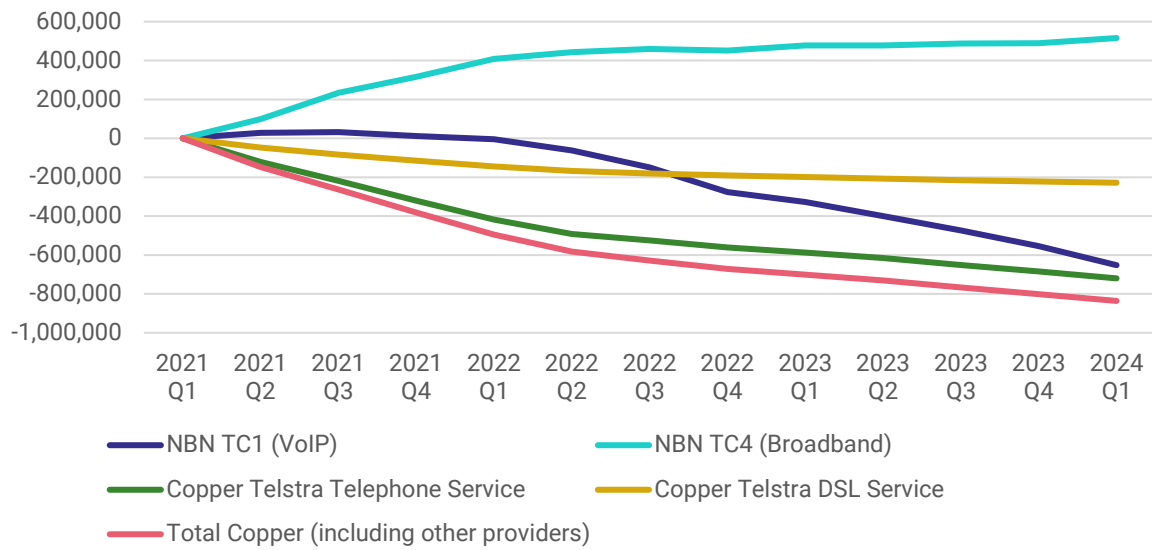
Broadband options for regional, rural and remote consumers

Some consumers still rely on copper services where suitable alternatives do not exist

From 2021, there has been a relatively proportionate number of customers entering the NBN network for their broadband connections as those leaving the Telstra customer access network, indicating a transition between these networks. Most consumers on the copper network during this period were subscribed to a voice service only, while the number of customers using only NBN for VoIP has been declining at a faster rate – suggesting that customers leaving the copper network are no longer purchasing a standard telephone service from any network. Over this period there were more NBN internet services being connected than Digital Subscriber Line/Loop (DSL) services being disconnected – indicating most were likely to be migrating to NBN connections.

⁵⁰ ACCC, [Public inquiry into the declaration of the domestic transmission capacity service and fixed line services – Final Report](#), March 2024, accessed 25 June 2024, p. 5.

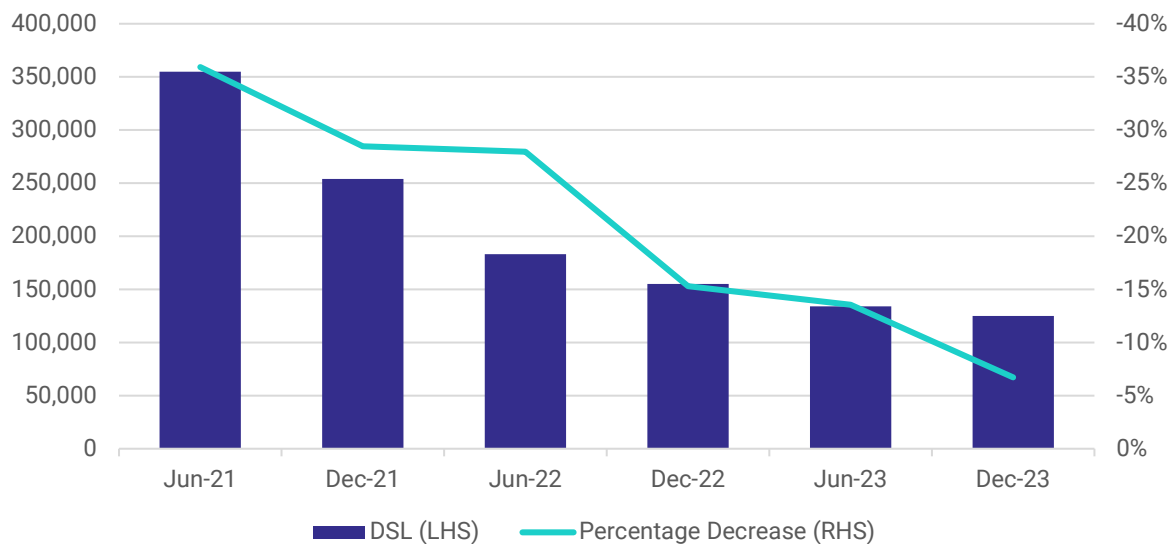
Figure 2. Change in services in operation (SIOs) – NBN vs Telstra copper networks – Q1 2021 to Q1 2024



Source: NBN Services in Operation (SIOs) record keeping rule; Telstra Customer Access Network (CAN) record keeping rule.

The number of consumers connected to the copper network is still reducing beyond the completion of the NBN. However, the number and proportion of DSL connections ceasing is showing signs of plateauing – indicating that remaining customers still value their DSL connections, despite the increasing availability of other services such as fixed wireless and satellite.

Figure 3. Change and percentage change in DSL services in operation (SIOs) – June 2021 to December 2023



Source: Internet Activity record keeping rule.

Given this proportion of consumers still reliant on copper-based services in the regions, the ACCC decided in March 2024 to continue to regulate access to resale fixed-line services – as outlined in our Combined Declaration Inquiry final report.⁵¹

As it appears that major retailers such as Telstra, Optus and TPG Telecom are no longer offering new retail ADSL services, customers eligible to retain their ADSL connections may consider whether alternative networks will provide comparable levels of performance and reliability.

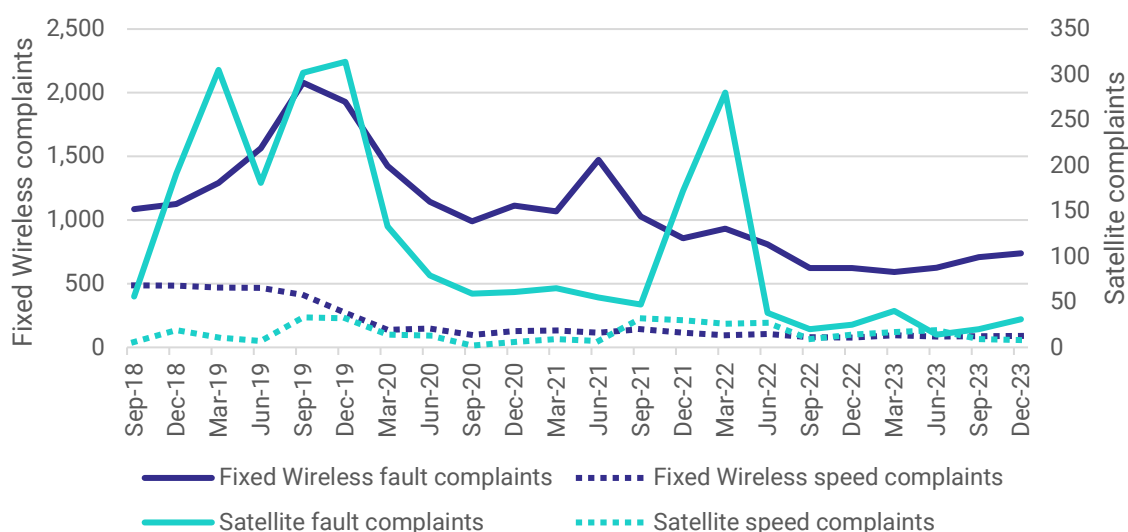
There remain many rural and remote consumers who still rely on the copper network for either their primary internet connection, or as a redundancy for less reliable alternative services. While we acknowledge the commercial incentives for migrating customers off copper-based services, this needs to be done in a transparent and robust way to ensure good outcomes for consumers.

Reliability is the core issue for consumers using alternative broadband services

Ongoing improvements to the capacity and performance of alternative broadband networks such as fixed wireless and satellite options are providing more choice for more consumers and small businesses in regional, rural and remote areas. While these technologies are emerging as viable alternatives to Telstra’s copper-based network, consumers using them appear to regard service interruptions and faults as an ongoing challenge.

As illustrated in Figure 4, the ACMA has in recent years received far more complaints about faults than speed for both fixed wireless and satellite services.⁵² This suggests that while the speeds offered by these networks may be meeting the needs of most consumers, the reliability of alternative broadband networks remains a concern for many users.

Figure 4. ACMA fixed wireless and satellite contacts – fault and speed complaints – September 2018 to December 2023



Source: ACMA telecommunications complaints-handling performance September 2018 to December 2023.

⁵¹ ACCC, [Public inquiry into the declaration of the domestic transmission capacity service and fixed line services – Final Report](#), March 2024, accessed 25 June 2024, pp. 4-6.

⁵² Australian Communications and Media Authority, [Telco complaints-handling performance](#), March 2024, accessed 24 June 2024.

We note the recent *Telecommunications Legislation Amendment (Enhancing Consumer Safeguards and Other Measures) Bill 2023* now allows for the ACMA to disclose the identity of a Carriage Service Provider in public reporting on specified matters that go to the quality of customer service.⁵³ We consider this to be a positive development to improve transparency and accountability.

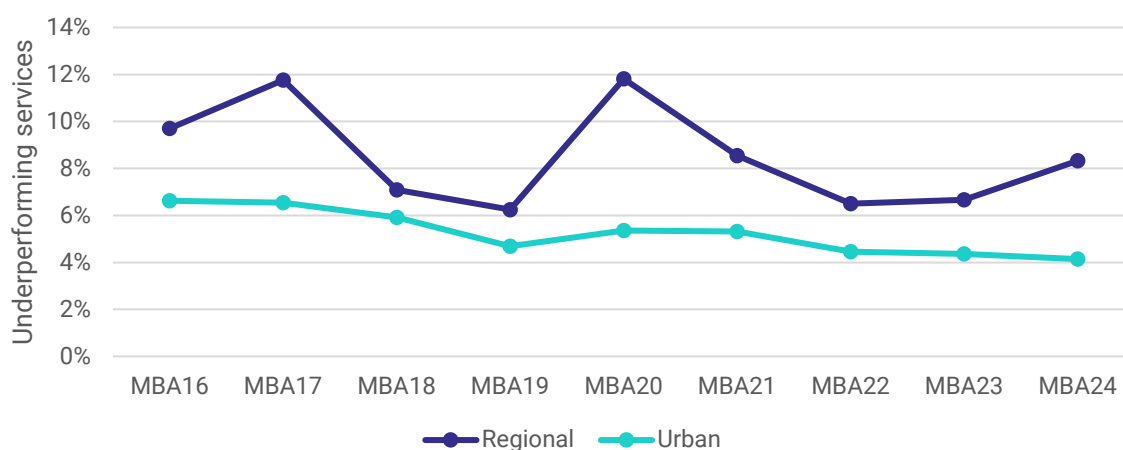
Broadband performance for regional, rural and remote consumers

Overall performance is improving for regional consumers despite underperforming services

The ACCC’s Measuring Broadband Australia report from December 2023 showed that consumers in both urban and regional Australia on NBN fixed-line broadband services saw an improvement in download and upload speeds between February 2022 and September 2023. The average busy hours download speed for consumers in urban areas increased from 96.8% of maximum download speeds to 99%, while regional consumers saw an increase from 94.2% to 97.2%.⁵⁴

However, as shown in Figure 5, the Measuring Broadband Australia program has revealed that regional users of NBN fixed-line broadband are still experiencing a higher proportion of underperforming services compared to their urban counterparts. Over the past 2 years, the percentage of underperforming services in regional areas has remained consistently higher and more unpredictable, whereas there has been a steady decline in underperforming services in urban locations.

Figure 5. Measuring Broadband Australia underperforming % for NBN fixed-line services – Regional vs Urban – March 2022 to March 2024



Source: ACCC Measuring Broadband Australia data.

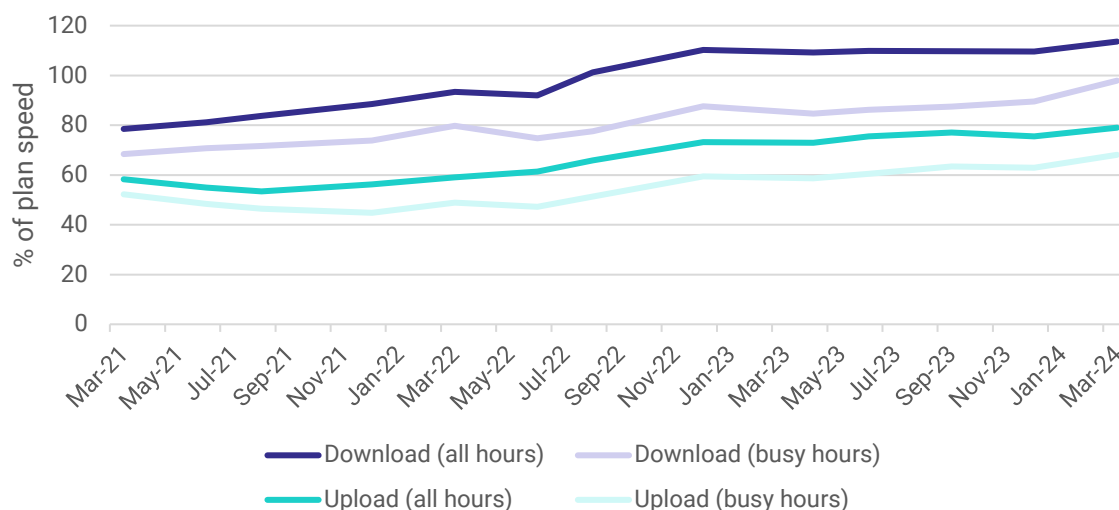
Notes: Measuring Broadband Australia defines underperforming services as those which reach above 75% of plan speed in no more than 5% of download tests – these are services which rarely or never attain plan speed. Measuring Broadband Australia defines urban services as those supplied in population centres with 10,000 or more residents.

⁵³ Parliament of Australia, *Telecommunications Legislation Amendment (Enhancing Consumer Safeguards and Other Measures) Bill 2023 – Explanatory memorandum*, May 2024, accessed 23 July 2024.

⁵⁴ ACCC, *Broadband performance in smaller towns nears metro levels* [media release], 12 December 2023, accessed 21 June 2024.

Meanwhile, it would appear that improvements to the NBN fixed wireless network are being reflected in the results of the ACCC’s Measuring Broadband Australia program. In February 2022, only 37% of NBN fixed wireless services achieved average download speeds above the 50 Mbps benchmark, compared to 72% of services in March 2023.⁵⁵ As shown in Figure 6, both average download and upload speeds have steadily increased over the past 3 years – with all hours average download speeds now exceeding advertised plan speeds.

Figure 6. Measuring Broadband Australia average NBN fixed wireless speeds as % of plan speed – March 2021 to March 2024



Source: ACCC Measuring Broadband Australia data.

Note: Measuring Broadband Australia average NBN fixed wireless speeds are expressed as % of plan speed, based on speed benchmarks for the 25/5Mbps fixed wireless plan and 50/10Mbps fixed wireless plus plan.

⁵⁵ ACCC, [Measuring Broadband Australia Program – Report 21](#), June 2023, accessed 21 June 2024, p. 35.

Disaster resilience and emergency

Access to telecommunications services during times of natural disaster and emergency is of paramount importance to those living in regional, rural and remote areas more susceptible to extreme weather events. Recent examples such as the 2019-20 Black Summer bushfires and the 2022 Eastern Australia floods highlight the need for solutions to support continued connectivity for affected residents and emergency services.

Improving network resilience more generally is another crucial means of support for regional communities. The Australian Government's Mobile Network Hardening Program is an example of funding designed to upgrade network strength and capacity in regional and remote areas, while emerging technologies may have a role to play in improving redundancy options during outages and emergencies.

Connectivity options during outages

Temporary Disaster Roaming is technically feasible

The ACCC's 2022-23 Regional Mobile Infrastructure Inquiry found that temporary mobile roaming during times of natural disaster is technically feasible.⁵⁶ Temporary Disaster Roaming is a subset of domestic roaming restricted to a certain geographic areas, at a limited number of sites, and for a limited period of time.

Mobile handsets in Australia generally support the frequency bands of all mobile network operators, meaning devices are capable of temporary roaming to competitor networks. During the Regional Mobile Infrastructure Inquiry industry forum, the mobile network operators agreed to develop a solution based on Telstra's proposal, and Telstra has set up a proof-of-concept in its Innovation Centre to demonstrate how the architecture would work.⁵⁷

Mobile network operators also outlined during the industry forum that Temporary Disaster Roaming is likely to require increased network capacity and additional power reserves.⁵⁸ These additional capacity and power requirements are due to the higher potential number of active users utilising base station sites of the surviving network within the affected area.

As part of the Regional Mobile Infrastructure Inquiry study, congestion on the surviving network was identified as the main technical risk of Temporary Disaster Roaming.⁵⁹ Network congestion can be unpredictable depending on the severity of the disaster – for example, Optus saw voice traffic of its customers double at the height of the 2022 Lismore floods.⁶⁰ Reliable mobile network access is vital for affected residents and emergency services personnel during disaster situations, and network congestion can result in slower data speeds, battery drain or network failure.

⁵⁶ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 24 June 2024, p. 82. Note, these findings relate only to Temporary Disaster Roaming, not roaming during network outages more generally.

⁵⁷ Auspreneur, [Telstra initiates emergency mobile roaming testing in natural disasters](#), 1 November 2023, accessed 24 June 2024.

⁵⁸ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 24 June 2024, pp. 87-89.

⁵⁹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 24 June 2024, p. 87.

⁶⁰ Optus, [Public submission to the Regional Mobile Infrastructure Inquiry](#), 14 September 2022, accessed 24 June 2023, p. 7.

Further investigation is required to understand the implications of direct-to-device LEOSat services

As discussed in the Mobile services chapter of this submission, the emergence of direct-to-device Low Earth Orbit Satellite (LEOSat) services has the potential to impact mobile coverage outcomes for regional, rural and remote communities. An important consideration of these satellite-based mobile services is that they are only likely to provide coverage outdoors, in areas with a clear line of sight to the sky.⁶¹

Further investigation is required to understand the implications of direct-to-device LEOSat technology for disaster resilience and emergency, and the feasibility of Temporary Disaster Roaming over direct-to-device LEOSat services has not yet been tested. However, given both Optus and Telstra have plans to deploy these services in the near future, it is likely that both networks will be able to offer an alternative service via their respective LEOSat partners in disaster situations.

The implications of direct-to-device LEOSat services for connective redundancy during disasters or emergency is another important consideration. The advantage of copper is that it can continue to operate in the instance of a blackout at the residential premises. However, copper faults typically require intervention by technicians and take significant time to fix. Consumers have reported rain fade interrupting connections to LEOSat services, and have indicated that keeping a copper connection alongside alternative services would provide redundancy.⁶² Telstra's recent trials indicate greater reliability of LEOSat broadband services over copper, and that they are generally unaffected by rain fade.⁶³ Further and independent testing would be warranted to confirm this is the case. It is also unclear whether direct-to-device LEOSat mobile reception would have different reliability statistics. For some – but not all – consumers, terrestrial mobile reception may offer a viable redundancy option while satellite systems are down.

⁶¹ Optus, [Together Optus and SpaceX Plan to Cover 100% of Australia](#), 12 July 2023, accessed 25 June 2024.

⁶² Department of Infrastructure, Transport, Regional Development, Communications and the Arts, [Low Earth Orbit Satellite Working Group—2023 Chair's Report](#), February 2024, accessed 25 June 2024, p. 5.

⁶³ Telstra, [Submission to Better Delivery of Universal Services Discussion Paper](#), 1 March 2024, accessed 25 June 2024, p. 6.

The impact of government and private investment

Achieving equitable connectivity for regional, rural and remote consumers requires ongoing investment to establish and maintain telecommunication networks. This is generally due to the modest commercial incentives for network providers to invest in areas of low population, combined with the high capital costs of participating in the industry. The key challenge involves simultaneously incentivising private investment, while making sure public funds are used to encourage competition and improve outcomes for end-users.

Government investment continues to be an essential driver of digital inclusion for regional consumers. These investments should be aligned between different levels of government, be targeted to ensure they retain and encourage competitive market conditions, and have clear objectives to maximise the connective outcomes for end-users. While the 2024-25 Federal Budget projected a reduction in communication expenses over the next 4 years – primarily due to the funding profile of the Better Connectivity Plan for Regional and Rural Australia, and the conclusion of the Mobile Black Spot Program⁶⁴ – continued government investments will be required to incentivise industry participation in regional and remote areas, and to meet the telecommunications needs of these communities.

Private sector investment in regional, rural and remote areas

Investment in mobile infrastructure is limited in remote areas

As outlined during the ACCC's 2022-23 Regional Mobile Infrastructure Inquiry, investment in mobile infrastructure is a commercial decision driven by demand from mobile network operators, other service providers and government.⁶⁵ Cost is a significant barrier to improved mobile infrastructure, and the inquiry also found that mobile network operators have little commercial incentive to invest in remote areas if providing new or better coverage in these areas does not impact their market share or generate sufficient additional revenue.⁶⁶

In regional and remote Australia between 2022 and 2023, Telstra added slightly more new mobile sites (97 sites) than Optus (78 sites), and significantly more than TPG Telecom (10 sites). Telstra continues to dominate the construction of new sites in remote areas – with 78% of new sites since 2021 established by Telstra.⁶⁷

The Regional Mobile Infrastructure Inquiry final report found that active sharing arrangements for towers, including neutral host models, can help alleviate the cost of providing mobile coverage compared to co-location. If active sharing or neutral host models are limited to deployment in areas where commercial incentives are absent, this has the potential to lead to more infrastructure sharing and competition in regional areas. The report

⁶⁴ Parliament of Australia, [Budget 2024-25 – Budget Strategy and Outlook – Budget Paper No. 1](#), 14 May 2024, accessed 25 June 2024, p. 220.

⁶⁵ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 72.

⁶⁶ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 77.

⁶⁷ ACCC, [Mobile Infrastructure Report 2023](#), November 2023, accessed 25 June 2024, p. 13.

posited that if such a model does not emerge in regional areas, it is likely being constrained by the commercial incentives of mobile network operators, mobile network infrastructure providers, or both.⁶⁸

Nevertheless – as cautioned during the Regional Mobile Infrastructure Inquiry – Telstra’s ongoing competitive advantage in regional Australia has the potential to present barriers to network expansion by other mobile network operators, and thus undermine incentives for competitors to invest and improve mobile coverage in regional areas.⁶⁹

The impacts of tower divestments remain unclear

As part of the 2022-23 Regional Mobile Infrastructure Inquiry, the ACCC was directed to consider the implications of the recent trend of mobile carriers selling their passive mobile infrastructure to specialist mobile network infrastructure providers. The inquiry’s final report found that it remains unclear whether the divestment of towers will lead to better access compared to pre-divestment conditions, based on 2 primary factors:

- each mobile network operator has become the anchor tenant of the mobile network infrastructure provider who purchased its towers, thus affecting incentives for the mobile network infrastructure provider to compete for new tenants, and
- there remains vertical integration between some industry players.⁷⁰

Some stakeholders to the Regional Mobile Infrastructure Inquiry raised particular concerns that the remaining vertical integration between Telstra and Amplitel may be resulting in enduring incentives for Amplitel to favour Telstra in regard to access – concerns which are more relevant in regional and remote areas where Amplitel owns the majority of towers.⁷¹

Carrier investments in regional transmission have been lacking

Communications networks rely on transmission capacity services to connect transmission points, which, like many forms of telecommunications infrastructure, have traditionally proved commercially challenging to establish and maintain in regional areas. Encouragingly, HyperOne’s ongoing construction of a new national backhaul fibre network – combined with Telstra’s increased investments in its backhaul capacity – may have positive implications for backhaul market competition in regional, rural and remote areas.⁷²

At the same time, 2024 record keeping rule data collected by the ACCC indicates that the majority of fibre rollout has not been in regional locations, and is occurring most frequently near large population centres.

Many regional, rural and remote areas are served solely by Telstra backhaul, and these areas are subject to regulation under the Domestic Transmission Capacity Service Declaration. The majority of submissions to the ACCC’s May 2023 Domestic Transmission Capacity Service Declaration discussion paper agreed that regional and remote locations – which generally only have one access provider – continue to require regulated access to a transmission capacity service.⁷³

⁶⁸ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 2.

⁶⁹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 79.

⁷⁰ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 65.

⁷¹ ACCC, [Regional Mobile Infrastructure Inquiry 2022-23](#), June 2023, accessed 25 June 2024, p. 65.

⁷² ITNews, [HyperOne 'knew' Telstra would try to overbuild its national fibre network](#), 2 February 2022, accessed 25 June 2024.

⁷³ ACCC, [Public inquiry into the declaration of the domestic transmission capacity service and fixed line services – Final Report](#), March 2024, accessed 25 June 2024, p. 59.

LEOSat operations are not yet proven to be commercially viable in regional areas

Historically – due to the higher investment costs for equivalent return – private sector investment in regional telecommunications has been lower than in metro Australia, and has thus required additional government support to provide adequate services. However, there has been significant recent investment in LEOSat technology that can service consumers in regional and remote Australia, without government subsidies, for both broadband and telephone. We note that these providers service a global market, not just regional Australia, so the historical comparison of private sector investment in these areas being unprofitable will not necessarily carry forward.

Having said that, Starlink – currently the primary provider of LEOSat services in Australia – has not yet reached a point of being sustainably profitable, and until this is the case, it should not be considered that the market can sustain services for rural and remote areas. However, this may change as providers are able to increase their return on investment. Expected increases in LEOSat competition also have the potential to reduce the future burden on public telecommunications funding in regional and remote Australia.

Private sector investment is not a complete substitute for existing services

A number of private sector Wireless Internet Service Providers are operating around Australia, providing alternative networks to the NBN. The vast majority of these alternative wireless internet access points are placed in areas where non-satellite NBN connections are available. However, some private sector wireless providers are establishing coverage in localised areas serviced only by NBN satellite, although they appear to primarily service business connections.⁷⁴

These investments by Wireless Internet Service Providers complement the rollout of LEOSat infrastructure by Starlink and Amazon, resulting in an alternative and geographically agnostic internet network available to consumers in regional and remote Australia. However, pricing on such networks is often higher than equivalent NBN services, which can render them inaccessible for some consumers.

While increasingly diversified private sector investment is occurring in regional Australia, the lasting impacts of these investments for competition and consumers is unclear, and thus these services do not represent a complete substitute for existing services.

Government investment in regional, rural and remote areas

Government investment plays a key role in improving regional coverage

Due to the often-challenging economics of providing telecommunications services in regional, rural and remote Australia, government investment continues to play a key role in improving and sustaining coverage in these areas.

⁷⁴ Better Internet for Rural, Regional & Remote Australia, [BIRRR WISP Map](#), accessed 25 June 2024.

Recent government investment programs have contributed to positive outcomes for competition and consumers. The Better Connectivity Plan for Regional and Rural Australia is deploying significant funding towards a range of initiatives in regional areas – including improvements to mobile coverage on regional roads, the delivery of regional infrastructure projects, support for digital agriculture, and NBN network upgrades. The Mobile Black Spot Program has also aided some improvements to mobile coverage and competition through ongoing investments towards telecommunications infrastructure in areas which have been traditionally underserved.

These and other government investments are crucial for connectivity and coverage outcomes in regional, rural and remote areas, and should be funded to levels that promote telecommunications equity for regional and remote consumers.

Government investment programs should be targeted to encourage competition

Where possible, government investment programs should be targeted to ensure they retain and encourage competitive market conditions. These programs should have clear objectives to promote competition and maximise the choice of providers for end-users. This is discussed further in the Mobile services section of this submission.