Regional Mobile Infrastructure Inquiry

Report on preliminary findings

18 April 2023

Contents

Executive summary

The Regional Mobile Infrastructure Inquiry (**the Inquiry**) is examining the costs and drivers of access to towers and associated infrastructure in regional, rural, remote and peri-urban areas within Australia. It is also examining the feasibility of temporary mobile roaming during natural disasters and emergencies. It is intended to provide an evidence base to the Australian Government to support future policy decisions.

The ACCC was directed to undertake the Inquiry by the then Minister for Communications in March 2022 and must provide a final report by 30 June 2023.

As required by the Direction, the ACCC has undertaken extensive consultation with industry, government and consumers in regional, rural and remote Australia. We have consulted with members of the community that are interested in improvements in mobile coverage.

Consistent with the Ministerial Direction, the ACCC has focused on the changes in industry structure arising from the divestment of tower assets by the mobile network operators (Telstra, Optus and TPG Telecom) to three major mobile network infrastructure providers (Amplitel, Indara and Waveconn). We have consulted widely with the providers of towers and associated infrastructure and the users of that infrastructure.

In addition, we have also consulted with consumers, mobile network operators and a range of stakeholder organisations as to the feasibility of providing temporary mobile roaming during emergencies.

This report provides the ACCC's preliminary findings for comment by interested stakeholders before providing a more comprehensive final report to the Minister.

Mobile phone services are important to many consumers, and this is heightened during natural disasters

As previous inquiries and reviews have also found, consumers expect good mobile coverage. Consumers expect mobile coverage in their homes, where they work and where they travel. These expectations are largely met in cities and more populous areas of Australia. However, many consumers in regional, rural and remote areas of Australia continue to report their experiences of poor coverage, congestion and in some locations, the limited choice in retail service provider.

Consumers expressed concern about how sparse coverage is a significant safety issue, for example at school bus stops or along main transport corridors between towns. Consumers also expressed concern about the accuracy of coverage maps provided publicly by mobile network operators.

Our engagement with Aboriginal and Torres Strait Islander consumers and consumer groups in regional, rural and remote areas indicated how the lack of reliable mobile access contributes to the digital divide. In 2021, the Australian Digital Inclusion Index survey data found that around 2.8 million Australians experienced a high level of digital exclusion. It also found that digital exclusion was more pronounced in regional areas than urban areas.[1]

Consumers highlighted the important of mobile connectivity during natural disasters to remain up to date with emergency news and to stay in touch with family and friends. Many consumers emphasised the stress and isolation that a lack of mobile services causes during

[1] The 2021 Australian Digital Inclusion Index results indicate that 11% of Australians experience a high level of digital exclusion, which is around 2.8 million people in 2021. See, J Thomas et al, *Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2021*, RMIT, Swinburne University of Technology and Telstra, 2021, p 5.

natural disasters. Stakeholders also highlighted the importance of mobile network resiliency during times of natural disasters.

Through our engagement with some agriculture groups and businesses, we have heard how Australian farmers are increasingly using mobile technology. Access to mobile data is increasingly relied upon with new agricultural equipment, providing the industry with the capacity to remotely monitor growth, check moisture content in the soil, health of the plant and fertiliser requirements. The ability to use such technologies can improve the productivity of agricultural businesses and create efficiencies and thereby cost savings.

Some costs incurred to provide towers are impacted by remoteness, while other costs are not

There are numerous types of costs incurred to build, maintain, upgrade and strengthen towers that can be used to provide mobile services.

Tower construction and build costs will tend to increase with the remoteness of a site. Costs that increase with remoteness may include:

- deploying the required personnel to remoter locations
- creating access roads, connecting the site to power and connecting to backhaul.

Costs such as antennas and feeders, batteries, active and equipment and site acquisition costs can vary significantly between sites however these types of costs tend to be more impacted by factors other than location.

Most towers in remoter areas appear to be at capacity. While new tower design and construction costs generally make allowances to accommodate multiple mobile network operators in urban areas, this is less likely in more rural and remote areas where demand for multiple mobile operators is lower. As such, towers in rural and remote areas are likely to provide for a single mobile network operator. While the capability to provide tower space to additional tenants is possible, it is likely to involve significant additional expenditure such as tower strengthening, power and accommodation upgrades.

Costs to access land are highly site specific, varying across site size, landlord, tenure type, market conditions and jurisdiction

The cost of accessing land varies both across and within regions. We have found that land access costs are highly site specific. The more regional and remote areas can have a range of challenges and associated higher costs of deployment of passive infrastructure.

A key issue stakeholders raise is the complexity of operating across multiple planning jurisdictions. We have also heard that access to land may be significantly affected by a range of planning and approval processes, some of which are complex, lengthy and costly. Some stakeholders advocated for reforms and streamlining of planning rules and processes to better facilitate mobile infrastructure deployment.

We also heard about the emergence of different land aggregators in the Australian telecommunications sector. Some stakeholders highlighted that the impact of land aggregators engaging in lease buyouts and speculating on land is more pronounced in regional areas and may increase land access costs.

It is unclear whether commercial arrangements are effectively facilitating access to towers

We have consistently heard that mobile network infrastructure providers (including Amplitel, Indara and Waveconn) have the incentive to increase the number of mobile network

operators co-located on towers as this leads to higher revenues. However, this incentive appears to lesson with remoteness.

There are various factors that are considered in setting fee arrangements between mobile network infrastructure providers and mobile network operators. One consideration is the price set during the divestment of tower assets. It does not appear that operational costs or capital costs are consistently considered between mobile network infrastructure providers in their fee arrangements.

Whether the new industry structure will operate to effectively facilitate access to towers remains to be seen.

Regulation governing access to infrastructure applies inconsistently across industry players and this warrants further consideration

The divestment of tower assets by the mobile network operators has highlighted the uneven operation of:

- The carriers' powers and immunities under the *Telecommunications Act 1997* (**the Telco Act**), which only apply to 'carrier' entities that hold a 'carrier licence'. The mobile network operators hold carrier licences and to our understanding the major mobile network infrastructure providers (Amplitel, Indara and Waveconn) do not.
- The Facilities Access Regimes. The Facilities Access Regime in Schedule 1 of the Telco Act applies to carriers, and Part 34B applies to 'eligible companies' which is where a carrier holds a relevant interest in the company and that company is considered part of a 'carrier company group'.
- The ACCC's Facilities Access Code (*A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities*) is made under Schedule 1 of the Telco Act and only applies to carriers.

Whether a carrier licence is held by an entity or an entity's corporate group has become key to whether the above regulation applies. Prior to divestment there were entities that were operating as independent mobile network infrastructure providers, such as BAI Communications. Post-divestment more tower assets are held by non-carrier entities. While mobile network infrastructure providers (such as Amplitel, Indara and Waveconn) have similar operations, varying levels of the above regulation applies to each entity.

We consider the uneven application of the regulatory framework warrants further review and consideration by government. Having the regulatory framework apply more consistently to entities with similar operations will likely require legislative changes to the Telco Act.

Mobile network operators drive demand for the provision of towers and provision of access to them, meaning the commercial strategy of mobile network operators is key to the provision of greater mobile coverage

Since the major mobile network infrastructure providers (Amplitel, Indara and Waveconn) do not use their towers, demand for these towers is derived from their primary customers, the mobile network operators.

The investment decisions made by the mobile network infrastructure providers are primarily driven by gaining or retaining market share in the downstream retail market for mobile services. Telstra maintains a competitive advantage in terms of its coverage, and this is very difficult for other mobile network operators to match.

Some stakeholders have raised concerns about how government funding programs contribute to this coverage difference between mobile network operators and add to the

difficulty of matching Telstra's coverage. This can lead to further disincentivises to providing greater mobile coverage in regional, rural and remote areas of Australia.

While many consumers prefer to obtain only one retail mobile service, we have heard multiple examples of consumers obtaining multiple retail services to overcome non-contiguous coverage. The effect of consumers generally preferring one retail service over time also means that smaller mobile network operators have less incentive to build out into regional and remote areas as they will struggle to gain customers.

Divestment of tower assets may have changed the incentives for some industry players, however most regional, rural and remote towers are still owned or controlled by Telstra

We have heard that the divestment of towers by the mobile network operators has changed the incentives for access to towers. However, Telstra retains a majority interest in the company now holding its tower assets, Amplitel. Access to existing towers in remoter areas will largely depend on the commercial terms of Amplitel.

How the incentives for encouraging co-location between Amplitel and Telstra will play out remains to be seen. We anticipate that the incentives to invest in providing greater mobile coverage in regional, rural and remote areas will not improve post-divestment.

Temporary mobile roaming during natural disasters is technically feasible, implementation and cost will depend on the policy objective

The Inquiry is required to report on the feasibility of temporary mobile roaming during natural disasters. All stakeholders we have engaged with recognise the importance of access to reliable telecommunications services during a natural disaster or emergency. We have received feedback that temporary mobile roaming could complement other emergency communication services during emergencies.

Our preliminary view is that temporary mobile roaming during natural disasters is technically feasible while acknowledging that there are issues that need to be considered to implement this capability. Implementation of temporary mobile roaming requires changes to the mobile network operators' business processes and systems. There would be a cost involved in establishing and maintaining a temporary mobile roaming capability. The mobile network operators have submitted this cost would be significant, however the ACCC is not able to verify this since the mobile network providers have not provided technical cost information in support or their submissions.

Government agencies and industry would also need to develop frameworks and protocols with the mobile network operators for initiating and deactivating temporary mobile roaming.

Enabling temporary mobile roaming may also contribute to the risk of congestion on operating networks during times of natural disaster, when there is likely to be significantly higher traffic demand. However, there are options available that could assist to manage this risk, such as restricting traffic from other networks (for example, by limiting traffic to low bit rate services). The time and costs to implement temporary mobile roaming may vary depending on the option chosen.

Temporary mobile roaming can only be activated where there is at least one network that remains operational after a natural disaster event. Many stakeholders submitted that there are various other policy priorities for ensuring reliable communications during natural disasters, including improving network resilience. Further scoping work is required to evaluate temporary mobile roaming and alternative solutions, for government to consider what is optimal and most efficient.

1. Background

This chapter introduces the background to the Inquiry and the consultation process for this report on preliminary findings.

1.1. About the Regional Mobile Infrastructure Inquiry

On 31 March 2022, the Australian Government announced that it had directed the ACCC to conduct an inquiry into:

a) access to towers and associated passive and active infrastructure provided by telecommunications and other infrastructure providers in regional, rural, remote and peri-urban areas within Australia, that can be used in the supply of mobile telecommunications and other radiocommunications services

b) the feasibility of temporary mobile roaming services to be provided during natural disasters and other such emergencies.[2]

The Inquiry is looking at the costs of providing towers and associated infrastructure, including land access, and how these translate into the fee structures for firms that want to access towers to provide mobile and other wireless services. The Inquiry is also looking at the factors that are important for industry in deciding whether to invest in towers and provide better mobile coverage.

The Direction can be found at **Attachment B**. A glossary of terms and definitions used in this report can be found at **Attachment A**.

The Inquiry will provide findings, not recommendations, in its final report which is due to the Minister for Communications by 30 June 2023.

This report provides an opportunity to interested stakeholders to comment on the Inquiry's preliminary findings.

1.1.1. The Inquiry has conducted consultation and information gathering

On 1 July 2022, we published a consultation paper and sought submissions.[3] To date, we have received a total of 58 submissions in response to the consultation paper or through our Consultation Hub.

On 20 September 2022, we opened an online consumer survey on the ACCC's Consultation Hub which focused on the following matters:

- how are businesses and consumers impacted by a lack of mobile coverage?
- would you support the provision of mobile roaming during emergencies?
- where can mobile coverage be improved?

The consumer survey closed on 31 March 2023. We have received 1,483 responses to the survey. These responses are reflected in this report on preliminary findings.

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2 ACCC, *Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022*, 25 March 2022.

3 ACCC, *Regional mobile infrastructure inquiry consultation paper*, 1 July 2022.

During 2023, we hosted three stakeholder forums, which we refer to throughout this report on preliminary findings. These forums were with:

- consumers and consumer organisations on 22 February 2023
- emergency services organisations and related bodies on 2 March 2023
- industry stakeholders via an in-person forum in Sydney on 16 March 2023.

The ACCC intends to publish de-identified summaries of these forums in May 2023.

Additional Inquiry engagement to date includes:

- Inquiry team members travelled with the ACCC's Indigenous Outreach team to remote Indigenous communities in the Northern Territory (Nauiyu/Daly River region) and engaged with community members and local businesses.
- Inquiry team members hosted an information booth at the Wimmera Machinery Field Day near Horsham in north-west Victoria in early March 2023, to seek the views of consumers living in rural and regional communities.
- We have held bilateral meetings with a number of stakeholders throughout the Inquiry.

1.2. Responding to this report on preliminary findings

The ACCC encourages industry participants, interested stakeholders and the general public to make submissions on the preliminary findings set out in this report. The ACCC prefers to receive submissions in electronic form, either in PDF or Microsoft Word format.

The ACCC considers that, for the consultation process to be effective, it is necessary for the consultation process to be as public and transparent as possible. This is to enable effective participation by all stakeholders. To foster an informed and consultative process, all submissions will be considered as public submissions and will be published on the ACCC's website.

If interested parties wish to make any claim of confidentiality over material provided to the ACCC during this consultation, they should follow the process below:

1. Please submit two versions of the submission:
    a) a **public** submission that can be published on the ACCC's website, in which all confidential material has been removed and replaced with 'c-i-c'. Please ensure that redacted information is not searchable or otherwise able to be viewed.
    b) a **confidential** version that clearly identifies the information over which confidentiality is claimed by bookending the confidential material with a marking of 'c-i-c'. Please also highlight for ease of reference the material over which confidentiality is claimed.
2. Information over which a party claims confidentiality must be limited to ensure full consultation on all relevant material.
3. Please provide a supporting submission that specifically substantiates the confidentiality claim for each item of information over which confidentiality is claimed. Confidentiality claims need to detail why the information is competitively sensitive or otherwise confidential, or why disclosure of the information would be likely to cause significant commercial harm to the person to whom the information is confidential. 'Blanket' claims of confidentiality will not be accepted. The ACCC will notify parties of any additional information required to assess a confidentiality claim.

4. Where the ACCC proposes to publish the information the subject of a confidentiality claim, it will provide a right to be heard and to amend or withdraw the information before proceeding to publication with redactions removed.
5. Where the ACCC proposes to not publish information the subject of a confidentiality claim and publishes a redacted submission, it may reconsider that claim at a future date if it becomes evident that the redacted information is important to the ACCC's consultation on the inquiry and needs to be tested with third parties. The ACCC will notify with the relevant party and engage with them in relation to how this information can be disclosed.

The ACCC will assess any confidentiality claims on a case-by-case basis and in doing so will have regard to its statutory and common law duties and functions in each instance.

The ACCC-AER information policy sets out the general policy of the ACCC and the Australian Energy Regulator (AER) on the collection, use and disclosure of information.[4]

Submissions on this report on preliminary findings should be emailed to the Regional Mobile Infrastructure Inquiry mailbox at rmii@accc.gov.au and are requested by **16 May 2023**.

[4] ACCC and AER, *ACCC/AER Information Policy*, June 2014.

2. Regional mobile consumer experiences and perspectives

Mobile connectivity and coverage issues affecting regional, rural, and remote consumers have been identified in previous inquiries, including the Regional Telecommunications Independent Review Committee reviews.

The ACCC was directed to consult with members of the community who may be interested in improvements in mobile coverage and/or temporary mobile roaming services to be provided during natural disasters and other such emergencies.

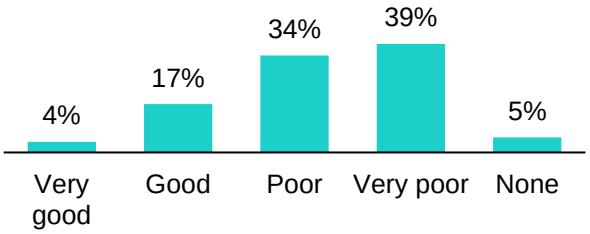
The preliminary findings from our consumer consultation are not new. However, we consider it is important to raise the concerns we have heard from regional, rural, remote and peri-urban Australians.

2.1. Regional, rural, and remote consumers experience a quality of service that can be significantly different from urban consumers

Regional consumers may experience a quality of service that is significantly different to Australians in urban areas. Consumers in urban areas expect their mobile phones to always be connected and be able to meet their needs at any time. In remoter areas, the reliability, quality, and performance of mobile services can be significantly different to urban areas. Many regional consumers expressed concern to the Inquiry about sparse coverage, accuracy of coverage maps and network congestion.

Results from our consumer survey show that around 78 per cent of respondents considered that mobile coverage in their area was poor, very poor or none. Around 69 per cent of respondents identified that they lived in a regional, rural, remote or remote Indigenous community.

Our consumer survey: how respondents rate the availability of their mobile coverage in their area



Consistent with concerns we have heard in the ACCC's Regional Mobiles Issues Forum 2018, consumers and consumer representative groups continued to report issues around the accuracy and comparability of mobile coverage maps.[5] Coverage concerns may drive consumers to select the mobile network operator with most coverage in their area. In areas where coverage is sparse, some consumers devise 'work-arounds' by acquiring services with multiple providers to maximise the coverage area by using dual-sim phones or carrying multiple devices.[6] Patchy coverage impacts the ability of consumers to undertake online administrative tasks related to their businesses, health or education, and the ability to adopt new technologies.[7]

Consumers also told us about significant safety concerns with gaps in mobile coverage, particularly along main transport corridors between regional and remote towns.[8] People experiencing having to drive to an area of coverage to call for help after traffic accidents or

5 For example, Australian Communications Consumer Action Network (ACCAN), *Public submission to the Regional Mobile Infrastructure Inquiry*; 4 August 2022, p 3; B Hore, *Public submission to the Regional Mobile Infrastructure Inquiry*, p 3; ACCC, *Consumer Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 22 February 2023.

6 ACCC, *Consumer Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 22 February 2023. The ACCC received multiple stakeholder comments to this effect in our consumer survey.

7 For example, National Farmers Federation, *Public submission Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 4.

8 ACCC, *Consumer Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 22 February 2023; see also for example, M Devine, *Public submission to the Regional Mobile Infrastructure Inquiry*, 2 August 2022, p 1; K Hawkins, *Public submission to the Regional Mobile Infrastructure Inquiry*, 10 March 2023, p 1.

other emergencies are common.[9] Some consumers also experience lengthy periods of being without telecommunications coverage (ranging from days to weeks), due to for example outages including to power, or natural disasters.[10] Response times to fix faults in regional areas may take substantially longer and require multiple visits, further contributing to safety concerns.

Network congestion issues are also a key concern for regional consumers.[11] The combined effect of people moving to regional areas and increasing demand for data appear to be contributing to congestion. Regional congestion can also be caused by seasonal influxes of tourists and the staging of events, where the networks are unable to deal with a sudden surge in demand.[12]

Consumers noted that while there are technical options to improve coverage, these options have some limitations. For example, the increased coverage able to be provided by cellular repeaters is dependent on the strength of the existing mobile network. Some consumers report that these options are not always known to consumers and consider them prohibitive in cost.[13]

The Australian Communications Consumer Action Network noted these issues and submitted that consumers are also concerned about the long-term implications of the structural changes in the industry.[14]

Access to mobile technology and the internet is essential for many Australians, but many rural and remote consumers consider they are being left behind. The 2021 Australian Digital Inclusion Index survey found that approximately 2.8 million Australians experienced digital exclusion and that exclusion is more pronounced in regional areas relative to urban areas.[15]

There are still many Aboriginal and Torres Strait Islander communities in remote parts of Australia where people have extremely limited access to mobile network coverage and substantially poorer mobile connectivity compared with urban Australia. Our engagement with Aboriginal and Torres Strait Islander consumers and consumer groups indicates that a lack of access to reliable mobile phone connectivity is a major contributor to Australia's digital divide among Aboriginal and Torres Strait Islander peoples in rural and remote areas.

Our consultations have found that Aboriginal and Torres Strait Islander peoples living in remote communities' value mobile services. Many of those we have engaged with have a strong preference for prepaid mobile data services over fixed wireless broadband. Many remote Indigenous communities experience poor mobile coverage or no coverage,[16] likely due to remaining on 3G technologies that provide poor speeds and are prone to congestion.[17]

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9 For example, Australian Communications Consumer Action Network (ACCAN), *Public submission to the Regional Mobile Infrastructure Inquiry*; 4 August 2022, p 4.

10 For example, I Lewis, *Public submission to the Regional Mobile Infrastructure Inquiry*, 4 August 2022, p 1.

11 For example, P Penfold, *Public submission to the Regional Mobile Infrastructure Inquiry*, 1 August 2022, p 1.

12 Alpine Shire Council, *Public submission to the Regional Mobile Infrastructure Inquiry*, 3 August 2022, p 1.

13 For example, W Kurz and B Kurz, *Public submission to the Regional Mobile Infrastructure Inquiry*, October 2022, pp 1 – 2.

14 The Australian Communications Consumer Action Network (ACCAN), *Public submission to the Regional Mobile Infrastructure Inquiry*, 4 August 2022, p 6.

15 The 2021 Australian Digital Inclusion Index results indicate that 11% of Australians experience a high level of digital exclusion, which is around 2.8 million people in 2021. See, J Thomas et al, *Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2021*, RMIT, Swinburne University of Technology and Telstra, 2021, p 5.

16 For example, Central Australian Youth Link Up Service (CAYLUS), *Public submission to the Regional Mobile Infrastructure Inquiry*, January 2023, p 2.

17 D Featherstone, *Remote Indigenous Communications Review: Telecommunications Programs and Current Needs for Remote Indigenous Communities*, Australian Communications Consumer Action Network, October 2020, p 58.

Preliminary Finding 1

Consistent with previous reports and inquiries, regional, rural and remote Australians consider mobile services to be vitally important but are concerned with coverage and congestion issues.

Preliminary Finding 2

Consumers in regional, rural and remote areas of Australia, including in remote Indigenous communities, experience quality of service levels that can be significantly different to urban areas.

Preliminary Finding 3

There can be options available to consumers to improve their mobile coverage or use an alternative way to access the Internet. However, where these options are available, options are not always known to consumers or can be expensive.

2.2. Recent natural disasters emphasise the need for access to reliable and resilient communications services

During the inquiry, many stakeholders emphasised the importance of remaining connected during emergencies and natural disasters.[18] Mobile services (including data services) are particularly important because they provide consumers and emergency services organisations with real-time information, access to emergency services, contact with loved ones, and resources for post-disaster recovery.[19]

Without these services, individuals may be left feeling distressed, isolated and vulnerable.[20] Based on these concerns, we have heard broad support for temporary roaming capability for natural disasters.[21] However, stakeholders stressed the importance of network resiliency in establishing any temporary roaming capability and noted potential for issues such as power outages and congestion.[22] This topic is discussed further in chapter 9 of this report.

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18 For example, Australian Communications Consumer Action Network (ACCAN), *Public submission to the Regional Mobile Infrastructure Inquiry*; 4 August 2022, p 7; Primary Producers SA, *Public submission to the Regional Mobile Infrastructure Inquiry*, 23 August 2022, p 3.

19 For example, National Farmers Federation, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 7.

20 For example, Central Australian Youth Link Up Service (CAYLUS), *Public submission to the Regional Mobile Infrastructure Inquiry*, January 2023, pp 1-2.

21 For example, Isolated Children's Parents' Association of Australia, *Public submission to the Regional Mobile Infrastructure Inquiry*, August 2022, p 2; Australian Communications Consumer Action Network (ACCAN), *Public submission to the Regional Mobile Infrastructure Inquiry*; 4 August 2022, p 7.

22 For example, Isolated Children's Parents' Association of Australia, *Public submission to the Regional Mobile Infrastructure Inquiry*, August 2022, p 3; Kalang Progress Association, *Public submission to the Regional Mobile Infrastructure Inquiry*, February 2023, p 1.

Preliminary Finding 4

Increasing instances of natural disasters in recent years significantly resonates with consumers, who have a heightened need for access to reliable communications services during such disasters.

Consumers consider reliable and resilient mobile services are particularly necessary during natural disasters.

2.3. Mobile technology is increasingly used in agriculture

Australian farmers are increasingly adopting internet-enabled digital technologies using the Internet of Things (IoT) which allows machines and ground sensors to communicate via the internet, by uploading to and downloading information from remote data processors.[23] Access to mobile data provides farmers and the wider agriculture industry with the capacity to remotely monitor growth, check moisture content in the soil, health of the plant and fertiliser requirements. Mobile connectivity also can enable the planting, growing, harvesting of crops (using robotics) and raise livestock using smart technologies. Such technologies can increase productivity, create efficiencies and respond to labour shortages, thereby impacting profitability and sustainability in the agricultural sector.[24]

Most of Australia's agricultural areas are in regional, rural and remote areas, and 4G mobile networks play an important role in increasing productivity. The ACCC has heard that the availability of mobile internet connectivity at farms can substantially reduce the cost of farming and realise opportunities that aren't otherwise feasible. From the stakeholders we have engaged with, we have heard there is a high degree of digitally literacy amongst farmers and the uptake of intelligent farming products is increasing every year. Growth in the sector is expected to increase rapidly where digital connectivity is available.[25]

The data requirement of farming equipment is unique to each application. Some machinery requires intermittent uploads and downloads, others require real time data transfer. The farming technology adopted by farmers will therefore dictate data demand, speed requirements and reliability, and ultimately which internet connectivity system they will access.[26] Mobile networks have a substantial role to play in the agricultural sector.

Preliminary Finding 5

Reliable access to the internet is an increasing issue in the agriculture industry. Mobile connectivity can impact how competitive a farm is and can also reduce costs for farmers.

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[23] ACCC interviews at the 2023 Wimmera Field Days, 7 – 9 March 2023; Primary Producers SA, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 23 August 2022, p 2; see also Australian Grape and Wine, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2.

[24] For example, Primary Producers SA, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 23 August 2022, p 1; Rock Ridge Farming, *Public submission to the Regional Mobile Infrastructure Inquiry*, 2 August 2022, p 2.

[25] ACCC interviews at the 2023 Wimmera Field Days, 7 – 9 March 2023.

[26] ACCC interviews at the 2023 Wimmera Field Days, 7 – 9 March 2023.

3. The costs of providing towers and associated infrastructure

Under the Direction, the ACCC is required to report on the costs of providing towers and associated infrastructure.

We have received extensive information on these costs and this chapter provides a summary of our preliminary findings.

3.1. Costs incurred in providing tower sites and their relationship to remoteness

3.1.1. Build costs for new towers are impacted by remoteness

There are several stages to building a new greenfield tower site. The typical costs incurred include:[27]

- site selection and planning approvals, including access to land
- radio and transmission planning relevant to the network
- tower construction and build costs, including civil construction, tower fabrication/delivery
- associated infrastructure costs, including equipment and installation for radio transmission equipment and antennas
- site access related costs
- connection to power costs.

Tower construction and build costs tend to increase with the remoteness of the site. One category of costs that increases with remoteness is the mobilisation of labour, including associated travel, accommodation and freight.[28] Typically, taller structures (such as lattice towers and guyed masts) are built in remoter areas, which are more expensive structures and require larger foundations and more land space (for example to anchor the guy wires).

Taller structures can allow mobile equipment to reach a broader geographical area and longer distances, but generally this result in thinner coverage (that is, can have less capacity) in remoter areas. In areas of lower population density, low band spectrum is preferred as it can travel longer distances. Low band spectrum has smaller bandwidth and hence less capacity compared to mid band or high band spectrum. In urban areas, mobile network operators are more concerned with providing dense coverage and sufficient capacity, due to there being a higher population in a smaller geographic area.[29]

The costs of upgrading or creating road access also tends to increase with remoteness, generally due to towers being further away from existing roads. Connection to power tends to increase with remoteness, due to sites often being a larger distance away from main power supply.[30] A lack of power infrastructure also increases the need for other power solutions, such as solar.

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[27] See for example, Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 2 September 2022, p 13, 21-23, Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, pp 8, 14; Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, pp 3-4; Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 11.

[28] See for example, Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 2 September 2022, p 22.

[29] See for example, Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 33.

[30] See for example, Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 8.

Connection to backhaul generally increases with remoteness due to there often being a lack of existing backhaul infrastructure. Remoter sites will also tend towards having microwave backhaul due to larger distances between sites, and this microwave backhaul can be over multiple radio hops.

Some costs vary between tower sites but are more impacted by factors other than location. For example, site acquisition costs are highly site specific and can be high in urban areas. We have heard that obtaining lease and regulatory approval can be faster and cheaper in regional areas than that in urban areas. This can be because land is cheaper, less contentious, and many landowners and councils are interested in having improved mobile coverage in their areas. For some regional or remote sites however, more land is required due to the use of guyed masts or towers, which can increase costs.

There are some cost components that are not impacted by where the tower is built, including antennas and feeders, batteries, active equipment and the transmission link connecting the radio access network to backhaul fibre.

Preliminary Finding 6

Tower site design, establishment and construction costs generally increase by remoteness.

Mobile network operators or other access seekers that are located on a tower are referred to as 'tenants'. It is generally cheaper to consider the likelihood of multiple tenants during the initial build of a tower site, than to later upgrade it to support multiple tenants.

The three major mobile network infrastructure providers (Amplitel, Indara and Waveconn) have highlighted that they will generally seek to build a new site that can support multiple tenants, generally at least two but if possible, three.[31] However, this is less likely to be the case in remoter areas due to the lower potential for multiple tenancies.[32] This would mean that mobile network operator's seeking to locate on existing towers in remoter areas would then face the costs of needing to upgrade the tower to support their equipment.

It appears that most existing towers in remoter areas are at capacity.[33] The lack of demand in rural and remote areas means that towers are generally built to support one tenant, and this means that any co-locations after the tower is built are more expensive.

We also understand that the operating expenses of a mobile network infrastructure provider, such as ground rent, utilities and maintenance costs are likely to increase by a small degree with additional tenants. To our understanding, the largest incremental cost mobile network infrastructure providers would face with an additional tenant may be an increase in ground rent payable to the landlord that owns the land where the tower is located.[34]

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31 Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 2 September 2022, p 20; Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 17; Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 5.

32 Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 2 September 2022, p 33.

33 See for example, NBN Co, *Public submission to Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 8.

34 See for example, Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 5.

Preliminary Finding 7

New tower design and construction costs generally consider accommodating at least two tenants in urban areas. In remoter areas, it is less likely that a new tower will be built with capacity to support more than one tenant.

The costs of new towers are impacted by the demand for co-locations. In rural and remote areas, there appears to be a higher cost of co-location after the initial build for second or third mobile operators due to the need to upgrade or strengthen towers to support additional equipment

3.1.2. Ongoing costs for towers are impacted by a range of factors

There are also ongoing costs to providing and maintaining a tower site, including:[35]

- business practices and systems, including staff to manage towers
- site rental to landowners
- electricity costs
- upgrades (for example to increase the height or capacity of the tower)
- maintenance and inspections, including grounds maintenance and maintenance of the tower structure.

There are several factors that appear to impact these costs. Maintenance costs are linked to the type of tower structure, as lattice towers and masts tend to have higher maintenance costs than most rooftop structures or monopoles.[36] Costs include maintenance of site ground, fence, access road, tower structure, headframe, fall arrest systems, tower corrosion, bird protection, and lightening protectors. There are also costs to mobilise personnel to regional, rural and remote areas. Consequently, maintenance costs tend to increase with remoteness.

However, most maintenance contracts tend to be a 'complete service package' that combines the ongoing maintenance of all towers. These site maintenance contracts generally include both the site (for example, vegetation, perimeter and building management) and tower maintenance.

The costs of business practices and support systems vary depending on provider and the types of systems they require.

Land requirements vary and we have not seen a discernible trend in terms of region. These are discussed in Chapter 4.

Preliminary Finding 8

For ongoing costs of tower maintenance, the cost of personnel mobilisation are impacted by region while other costs are not impacted by region.

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35 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 12; Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 2 September 2022, p 17; Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, pp 8-9; Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 4.

36 Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 4.

3.2. Options for capacity upgrades are more limited in remoter areas

With the demand for data use on mobile networks continually growing, there is an increasing amount of small-cell infrastructure being built in more densely populated areas. In remoter areas, the tendency is to consider upgrades to antennas on existing structures, which can lead to structural upgrade costs.

Preliminary Finding 9
Options for capacity upgrades to meet consumer demand for mobile services are more limited in regional, rural and remote areas compared with urban areas.

4. Land access

The Direction requires the ACCC to have regard to the costs of accessing land to provide towers and associated infrastructure.

Location is vitally important for mobile coverage, to provide new coverage and fill coverage gaps often referred to as 'black spots'. We received significant submissions on these issues, reflecting its importance to mobile network infrastructure providers and mobile networks operators.

A key issue raised is the complexity of operating across multiple planning jurisdictions. We received several industry submissions indicating that access to land may be significantly affected by a range of planning and approval processes, some of which are lengthy and costly. Several stakeholders advocate for reforms to adjust and streamline planning rules to better facilitate infrastructure deployment.

4.1. Land access arrangements

Infrastructure providers and mobile network operators engage with private, commercial and government landlords.[37]

Accessing land for mobile network infrastructure can occur in the following ways:

- freehold land: private ownership of land, including land held by First Nations landowners. Access to private land may be preferred due to council regulations being among the only restrictions to land access.
- leasehold: leasing private property through a private citizen or commercial entity.
- non-freehold property: leasing public land held by federal, state, territory or local government, including reserves, national and State parks and forests, as well as land covered under Native Title legislation.

Government and private landlords set rents in fundamentally different ways. Private landlords tend to negotiate fees themselves or through an intermediary, however government entities set prices for land access through rental determinations. For example, in Queensland, this is set by the Queensland Valuer General.[38]

4.1.1. State and territory regulations vary

The proportion of different types of land and related regulations differ markedly between states and territories. For example, approximately 55 per cent of Victoria is freehold agricultural land and around 38 per cent is public land.[39] Victorian reserves are managed by a diverse range of land managers including local government, statutory bodies or government agencies.

Conversely, most of the land in South Australia is privately owned or held under a Crown lease or other arrangement.[40] Crown land in South Australia is subject to different types of tenure including licence, dedicated land, term lease or perpetual lease.

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37 Infrastructure providers can include the major mobile network infrastructure providers (such as Amplitel, Indara and Waveconn) and other infrastructure providers such as BAI Communications and NBN Co.

38 Queensland Government, *About land valuations in Queensland*, accessed 27 March 2023.

39 Agriculture Victoria, *Land Use*, accessed 27 March 2023.

40 Government of South Australia Department of Environment and Natural Resources, *What is Crown Land*, accessed 27 March 2023.

4.1.2. Special arrangements for some types of telecommunications infrastructure

Schedule 3 to the *Telecommunications Act 1997* (Cth) provides 'carriers' with certain powers and immunities. If carriers meet certain criteria they can inspect, install and maintain 'low-impact facilities' with some exemptions to state, territory or local government planning approval or landowner consent. This is discussed further, including a definition of a carrier, in chapter 5.

4.1.3. Accessing land in more rural and remote areas

We have heard that mobile network infrastructure providers are not incentivised to acquire land in areas where there is low potential for multi-carrier tenancy, or where there is no commitment from a mobile network operator to locate. This is particularly the case in rural and remote areas where the business case is poor due to a low customer base for mobile network operators. As outlined further below, accessing land in more rural and remote areas can have a range of challenges and associated higher costs of deployment.

4.2. The costs associated with accessing land

Based on stakeholder submissions and data we have collected, land access costs are greatly variable across site size, landlord, tenure type, market conditions, state/territory and region.[41] Land access costs appear to be highly site specific and may include initial costs (such as site selection, commercial negotiation, state and territory planning and authorisation costs) and ongoing rental costs.

Stakeholders emphasised that finding the most suitable land is essential to infrastructure deployment.[42] However, the cost of securing the most suitable site may depend on zoning of surrounding land (for example residential, commercial or rural), and local community views. Amplitel submits that as towers are often located at high points, these areas can be sensitive as they often coincide with local landmarks, national parks or areas significant to traditional owners.[43] Amplitel also submits that tenure costs and risks can vary by landlord. For example, the short-term nature of commercial leasehold can increase long-term risks for access costs.

Several stakeholders also submitted that access to government land is significantly more expensive than private land.[44] Accessing land may be impacted by a range of varying costs associated with government planning and approval processes, as outlined in section 4.3 below. NBN Co submits that access costs are typically higher for government owned land based on the need to engage with multiple agency approval processes and the timeframes for obtaining approvals.[45]

The Department of Regional NSW outlined the annual fees NSW National Parks and Wildlife Service charges for all telecommunications facilities located on reserved land. Currently, for primary users, the fees are approximately $18,000 (sites in remote areas) and $32,000 (sites in regional areas). For co-users, the fees are between approximately $9,000 (sites in remote areas) and $16,000 (sites in regional areas). These fees can vary depending on location,

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41 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 32; and BAI Communications, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 6.

42 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, pp 18-19; and Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 14.

43 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 19.

44 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 5., NBN Co, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p.9, Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 14, Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 4.

45 NBN Co, Public Submission to the Regional Mobile Infrastructure Inquiry, 8 August 2022, p 9.

may have annual consumer price index increases and are reviewed every five years and adjusted based on the market rental for communications facilities.[46]

NBN Co also noted the additional imposition of co-user fees by government landlords even where the primary tenant is paying rent and the co-user makes no further encumbrance on the land.[47] Others also noted that the imposition of co-user fees by government landlords increases access costs. [48]

Preliminary Finding 10

Based on stakeholder submissions and data we collected, there is considerable variance in land access costs across states and territories, areas of remoteness and public versus private property owners.

Preliminary Finding 11

Several industry stakeholders report that Government/Crown land is typically more expensive than private land.

4.3. Planning rules vary across states, territories and different levels of government

Industry stakeholders consistently reported that the deployment of telecommunications infrastructure may be significantly affected by differing planning and approval rules across varying levels of government, some of which can be lengthy with varying costs. These may include:

- negotiating access with landlords before a development application can be lodged
- development applications
- differing planning approval requirements across state and territory governments
- delays resulting from adverse planning outcomes (and in some cases lengthy court disputes)
- local community opposition
- scarcity of local government sites zoned for commercial or industrial use
- changes in local governments during the planning process
- securing rights to traverse neighbouring land
- national park access rules
- heritage laws
- native title laws and accessing traditional lands
- connection to power networks
- construction/maintenance of road access.

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46 Department of Regional NSW, *Public submission to the Regional Mobile Infrastructure Inquiry*, August 2022, pp 3-4.

47 NBN Co, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 11.

48 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, pp 35, 45.

The Department of Regional NSW outlined a range of planning costs for NSW Crown lands, noting that assessing new planning applications can involve substantial time and resources. This includes environmental assessments, compliance with NSW National Parks and Wildlife legislation, heritage and Aboriginal cultural impact assessments and assessing bushfire mitigation risks.

During the Inquiry's industry stakeholder forum, some stakeholders submitted frustrations that a national issue such as telecommunications infrastructure was impacted by varying levels of government, that some state and territory governments were easier to work with than others, and some reported inconsistent application of planning rules by some local government bodies.

4.4. Views on areas of reform

Throughout their submissions, industry stakeholders consistently raised concerns about varying government planning and approval regulations. Stakeholders suggested several reforms to streamline existing rules to better facilitate infrastructure deployment.

Amplitel and Telstra submit that streamlining state and territory planning rules is needed to increase efficiency and reduce costs of securing land sites.[49] Amplitel submits that this should include non-carrier mobile network infrastructure providers also being made exempt from planning and development approvals for towers, particularly towers built under a co-funding program, towers in certain zones and towers under specified heights.[50]

At the Inquiry's industry stakeholder forum, some stakeholders suggested the NSW State Environmental Planning Policy was an effective planning approvals and exemptions model that should be adopted more broadly.[51] Among other things, the NSW State Environmental Planning Policy provides streamlined planning approvals and exemptions for certain telecommunications infrastructure deployment and upgrades.

Several industry stakeholders also support the recommendations made by the 2019 NSW Independent Pricing and Regulatory Tribunal Review of Rental Arrangements for Communications Towers on Crown Land, which recommended significantly reduced rents. TPG Telecom submits that the Independent Pricing and Regulatory Tribunal's outcomes and recommendations can be applied more broadly across access to private land. Telstra submits that reforms to charges for access to Crown land could lead to significant cost savings increasing the economic case to extend mobile coverage in more regional and peri-urban locations.[52]

Waveconn submitted that more favourable arrangements for accessing government land would support increased investment.[53] The Australian Mobile Telecommunications Association submits that the Federal Government should attend to land access costs as a policy matter to further improve regional coverage.[54] Telstra also supports reforms outlined in Australian Mobile Telecommunications Association's *State and Territory 5G Infrastructure Readiness Assessment Report*, regarding access to crown land.[55]

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49 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 4; .Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 14,18.

50 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, pp 4, 18.

51 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

52 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 14, 17; TPG Telecom, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p.6.

53 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p.3.

54 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 4.

55 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 18 and Australian Mobile Telecommunications Association (AMTA), *5G Infrastructure Readiness Assessment*, March 2021.

The Australian Mobile Telecommunications Association and Telstra also submitted that updates to the Communications Alliance Mobile Base Station Deployment Code are needed to avoid unnecessary costs when notifying Interested and Affected Parties.[56] Amplitel submits that minimum required lot size for telecommunications towers should be reconsidered it unnecessarily increases costs, requiring the purchase of more land than is required for towers.[57]

Preliminary Finding 12

Several stakeholders argue that streamlining and reforming state and territory planning rules may better facilitate infrastructure deployment. This includes reforms to access costs to Crown land, reconsidering minimum lot sizes for towers and giving non-carriers similar tower planning exemptions to carriers.

4.5. The impact of land or lease aggregators

Land aggregators are emerging entities in the Australian telecommunications sector. There are different land aggregator business models. For example, Indara notes that it could be considered a land aggregator given it aggregates land to service the telecommunications industry through the consolidated management of telecommunications infrastructure.[58] Other land aggregators may engage in tower lease buyout schemes, by acquiring long-term rental contracts from property owners in exchange for the right to receive ongoing rent from telecommunications providers.[59] The Australian Mobile Telecommunications Association and Telstra submitted that aggregators such as AP Wireless and Landmark Dividend procure land in this way.[60] Both the Australian Mobile Telecommunications Association and Telstra also submitted that many land aggregators are 'well supported' and some are backed by major pension funds.[61]

Industry stakeholders have highlighted the potential impact land aggregators may have on regional infrastructure deployment. The Australian Mobile Telecommunications Association and Telstra assert that the impact of land aggregators may be more pronounced in regional areas where landholdings are larger, and the choice of alternative sites is much smaller.[62] Several stakeholders submit that land aggregators procuring rental contracts and speculating on land (ahead of towers being built) may potentially increase rental costs.[63] Field Solutions Group asserts that this behaviour is tying up land and has the potential to

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56 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 4 .Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 14-15

57 Amplitel, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, pp 18,.20.

58 Indara, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 11.

59 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 16.

60 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 6 ; and Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry,* 30 August 2022, p 16.

61 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 6 and Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 16.

62 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 6; Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 16.

63 Australian Mobile Telecommunications Association (AMTA), *Public Submission to the Regional Mobile Infrastructure Inquiry*, 1 September 2022, p 6; Field Solutions Group, *Public Submission to the Regional Mobile Infrastructure Inquiry*, August 2022, p 7; Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 16; TPG Telecom, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 8

lessen service levels, with providers having to settle for less-than-optimal tower locations where multiple parcels of land are targeted.[64]

At the Inquiry's industry stakeholder forum, industry stakeholders suggested that the full effect of land aggregators in the market is yet to be seen.[65] Some stakeholders noted that land aggregators currently hold a small percentage of the private land lease market and further increases in ownership may lead to land aggregators seeking higher rents.[66]

[64] Field Solutions Group, *Public Submission to the Regional Mobile Infrastructure Inquiry,* August 2022, p 7.

[65] ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

[66] ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

5. Existing commercial and regulatory arrangements for tower access

The Direction requires the ACCC to consider the existing commercial arrangements for access to towers as well as their effectiveness. We are also required to have regard to the effectiveness of current commercial and regulatory arrangements in enabling access to towers.

5.1. Commercial arrangements for access to towers

We understand that each of the mobile network operators have a long-term agreement in place with a mobile network infrastructure provider, which they have negotiated from a significant bargaining position (the sale of their assets to the mobile network infrastructure provider). The mobile network operators also enter into contracts with other mobile network infrastructure providers, and can build their own sites if needed (although there can be restrictions or financial implications of doing so in existing commercial arrangements).

It is currently unclear whether the commercial arrangements are effectively facilitating access to towers. This is largely due to some agreements being currently under negotiation. Generally, submissions we have received and discussion at the industry stakeholder forum anticipated that there will be increased competition between mobile network providers for additional tenancies.[67]

We have heard that the overall fees a tenant, such as a mobile network operator, pays to a mobile network infrastructure provider are influenced by several factors, such as:[68]

- the price set during the initial sale of the assets
- having either portfolio-wide or geographic based pricing to increase administrative simplicity
- contributions made or requested to upgrade the structural capacity of towers to support significant additions of new equipment
- volume and co-location discounts.

Tower infrastructure is managed based on recovering costs over the long term in return for an upfront capital outlay.[69] Some access seekers are concerned about the price of access to towers giving the incentive for mobile network infrastructure providers to seek a return on the investment of purchasing the tower assets. This suggests that while there may be the incentive to increase co-location, it may also be the fees payable to mobile network infrastructure providers for co-location have increased post-divestment.

The divestment transactions appear to impact access costs in that access fees take into consideration the value of the divestment transactions.[70] Tower access fees reflect both the operation of, and investment in, the mobile network infrastructure provider's tower network, and recovering the capital outlay in purchasing the towers. Access fees post-divestment may be higher to account for the recovery of capital outlay.

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67 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

68 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 5; Field Solutions Group, *Public submission to the Regional Mobile Infrastructure Inquiry*, 10 August 2022, p 6.

69 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 12.

70 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 12.

Costs for providing towers may increase by remoteness but the appetite or ability for multiple tenancies decreases by remoteness. This means there are complex incentives for mobile network infrastructure providers in establishing their fee arrangements with mobile network operators.

Preliminary Finding 13

Each mobile network operator has a strong relationship with at least one mobile network infrastructure provider, due to the terms of the mobile network operator's recent sale of tower assets to that respective mobile network infrastructure provider.

Preliminary Finding 14

Fee arrangements appear to vary substantially between mobile network infrastructure providers and mobile network operators, and by region. It does not appear that operational costs or capital costs are consistently considered between mobile network infrastructure providers in their fee arrangements.

Preliminary Finding 15

The fees for access to towers are impacted by the divestment transactions in that a return on investment for the cost of purchasing the tower assets is a factor that mobile network infrastructure providers consider in establishing access costs.

Preliminary Finding 16

It is too early to tell whether current commercial arrangements are effectively facilitating access to towers. There is some uncertainty around how the industry will operate post-divestment.

5.2. Regulatory arrangements

The *Telecommunications Act 1997* (Cth) (**Telco Act**), the *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth), and Part XIB and Part XIC of the *Competition and Consumer Act 2010* (Cth) are central to creating a regulatory framework for the telecommunications industry.

The Telco Act provides that the main object of the Telco Act when read together with Parts XIB and XIC of the *Competition and Consumer Act 2010*, is to provide a regulatory framework that promotes:

- the long-term interests of end-users of carriage services or of services provided by means of carriage service
- the efficiency and international competitiveness of the Australian telecommunications industry

- the availability of accessible and affordable carriage services that enhance the welfare of Australians.[71]

This is also the object of the *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth).

It is Parliament's intention that telecommunications be regulated in a matter that:

- promotes the greatest practicable use of industry self-regulation
- does not impose undue financial and administrative burdens on participants in the Australian telecommunications industry

but does not compromise the effectiveness of regulation in achieving the objects referred to above.[72]

The Telco Act identifies 'carriers' and 'carriage service providers' as the main participants regulated in the telecommunications industry. Carriers and carriage service providers are subject to regulation. There is also the concept of a 'content service provider' which relates to content services such as a pay TV service.

5.2.1. Regulation applies to carriers and companies that are part of a group that has a carrier company

The legislative definitions behind the concept of a 'carrier' in the Telco Act are complex, but essentially a 'carrier' means the holder of a 'carrier licence'.[73] A carrier licence is required before physical telecommunications infrastructure owned by a person can be used to supply a 'carriage service' to the public.[74] A mobile network operator owns the type of infrastructure that is used to supply a retail mobile service to the public, including base stations, and therefore requires a carrier licence to operate.

A 'carriage service provider' is a person who makes use of the infrastructure owned by a carrier to carry communications by means of guided and unguided electromagnetic energy.[75] A carrier can be both a carrier and carriage service provider. A carriage service provider includes mobile network virtual operators, which do not themselves own mobile network infrastructure, but instead use wholesale services provided by mobile network operators to provide a retail mobile service to the public.

Currently, the Telco Act and the *Competition and Consumer Act 2010* do not include any specific regulation of mobile network infrastructure providers that do not hold a carrier licence, or are not part of a company group that has a company with a carrier licence. The operations of mobile network infrastructure providers could be captured by other concepts, such as those in the *Competition and Consumer Act 2010*.

Regulation that is relevant to building telecommunications infrastructure and accessing such infrastructure is outlined below.

5.2.2. Part XIC of the *Competition and Consumer Act 2010* – access to declared services

Part XIC of the *Competition and Consumer Act 2010* establishes a 'telecommunications access regime' with the object of promoting the long-term interests of end-users of carriage

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71 Telco Act s 3; *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth) s 3.

72 Telco Act s 4.

73 Telco Act s 7. A carrier licence is granted under s 56 of the Telco Act.

74 Telco Act ss 7, 42.

75 Telco Act ss 7, 16, 87.

services. Under s 152AL, 'eligible services' (which includes carriage services and services that facilitate the supply of a carriage service) can be declared services. Where a carrier or an NBN Corporation supplies a declared service, sections 152AR and 152AXB respectively provide that they must comply with the 'standard access obligations'. These require, on request, the supply of declared services to access seekers.

There is no general right of access to eligible services (such as a carriage service) unless the service is a declared service.[76] To the extent mobile network infrastructure providers do not provide 'eligible services' that are declared, they are not subject to this form of regulation.

5.2.3. Section 112 of the Telco Act – industry codes

Subsection 112(1) of the Telco Act sets out that Parliament intends that bodies or associations that the Australian Communications and Media Authority (ACMA) is satisfied represent sections of the telecommunications industry should develop industry codes to apply to participants in the respective sections of the industry in relation to the telecommunications activities of the participants.

An example is the *Mobile Phone Base Station Deployment Code*, which applies to carriers who are installing, intending to install, operating, or contracting or arranging for the installation of fixed radiocommunications infrastructure, which is used, intended to be used, or capable of being used to supply Public Mobile Telecommunications Services.[77]

5.2.4. Schedule 3 of the Telco Act – carriers' powers and immunities

The Telco Act provides powers and immunities for licensed carries to access and use land which is owned by third parties.[78] Carriers can install 'low-impact facilities' on land and in doing so are exempt from some state or territory laws, such as in relation to town planning, the use of land or the assessment of environment effects.[79] In doing so, carriers must comply with the *Telecommunications Code of Practice 2021* which is made pursuant to subclause 15(1) of Schedule 3 to the Telco Act.[80]

Facilities that are low-impact are generally phone and internet network structures that are less conspicuous.[81] Low impact facilities can include small antennae or dishing, equipment in buildings, and equipment on structures that already exist such as buildings, poles or towers (with some height restrictions).[82]

These provisions apply only to carriers and not to companies that are part of a group that has a carrier company. Our understanding is that the carrier's power and immunities do not apply to Amplitel or Indara as the entities themselves do not hold a carrier licence. Some mobile network infrastructure providers own or operate rooftops, and install such rooftops. However, if the mobile network infrastructure provider entity does not itself have a carrier licence, it is not able to directly rely on these powers and immunities.

Our understanding is that mobile network infrastructure providers consider that they do not need a carrier licence. This is because they rely on contractual arrangements with the

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76 ACCC, *A guideline to the declaration provisions for telecommunications services under Part XIC of the Competition and Consumer Act 2010*, August 2016, p 6.

77 Communications Alliance Ltd, *Industry Code C564:2020 Mobile Phone Base Station Deployment*, December 2020, p 3.

78 Telco Act s 484, Sch 3.

79 Telco Act s 484, Sch 3 s 37.

80 *Telecommunications Code of Practice 2021*

81 Australian Communications and Media Authority (ACMA), *Local councils and network facilities*, accessed 27 March 2023.

82 Australian Communications and Media Authority (ACMA), *Local councils and network facilities*, accessed 27 March 2023.

mobile network operator to use the carrier's power and immunities under the Telco Act when needed.

5.2.5. Part 34B and Parts 3 and 5 of Schedule 1 of the Telco Act – facilities access regimes

Part 3 of Schedule 1 to the Telco Act provides for carriers to provide other carriers with access to facilities it owns or operates. A 'facility' means any part of the infrastructure of a telecommunications network; or any line, equipment, apparatus, tower, mast, antenna, tunnel, duct, hole, pit, pole or other structure or thing used, or for use, in or in connection with a telecommunications network.[83]

Part 5 of Schedule 1 to the Telco Act provides for carriers to provide other carriers with access to telecommunications transmission towers, the sites of telecommunications transmission towers and eligible underground facilities. A telecommunications transmission tower and eligible underground facility each fall within the definition of 'facility' in s 7 of the Telco Act. The ACCC can make a code setting out conditions that are to be complied with in relation to the provision of access under Part 5 of Schedule 1 to the Telco Act. The ACCC has made such a code, entitled, *A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities* (the **Facilities Access Code**).[84] Compliance with the Facilities Access Code is a standard carrier licence condition.[85] The Facilities Access Code only applies to carriers, meaning that it does not apply to Amplitel, Indara and Waveconn.

Parts 3 and 5 of Schedule 1 of the Telco Act allow a carrier to access the facilities of another carrier, including by allowing co-location of facilities.[86] Clause 18 of Part 3 and Clause 36 of Part 5 of Schedule 1 of the Telco Act require that the terms and conditions of access to facilities are to be agreed by carriers or, failing agreement, are to be determined by an agreed arbitrator or the ACCC.

Part 34B of the Telco Act is a relatively new addition to the Telco Act.[87] The new Part 34B largely mirrors the carrier-to-carrier facilities access regime contained in Parts 3 and 5 of Schedule 1 to the Telco Act.[88] Part 34B applies to telecommunications transmission towers and supplementary facilities owned by a body corporate that does not have a carrier licence but is part of a 'carrier company group'. Part 34B requires an 'eligible company' to give a carrier access to facilities owned or operated by the eligible company.

An eligible company means a body corporate that is in a 'carrier company group' and is not a carrier.[89] A 'carrier company group' is two or more related companies, of which at least one is a carrier. Whether companies are related is determined in accordance with section 50 if the *Corporations Act 2001*, however for the purposes of Part 34B of the Telco Act a company will be a subsidiary of a second company if the second company can cast, or control the casting of, more than 15 per cent of the votes that might be case at a general meeting, or holds more than 15 per cent of the issued share capital (referred as the 'control threshold').[90]

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83 Telco Act s 7 (definition of 'telecommunications network').

84 *A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities*, 1 January 2023.

85 Section 61 of the Telco Act provides that a carrier licence is subject to the conditions specified in Schedule 1, and subclause 37(2) of Schedule 1 to the Telco Act provides a carrier must comply with the Code.

86 See also Explanatory Memorandum (Volume 1) to the Telecommunications Bill 1996, p 7.

87 Part 34B commenced on 14 December 2021, see *Telstra Corporation and Other Legislation Amendment Act 2021* s 2. However, the ACCC's review of the corporate control percentage (under s 581ZH(1) of the Telco Act) meant that this Part 34B was not operational until six months later.

88 Explanatory Memorandum to the Telstra Corporation and Other Legislation Amendment Bill 2021, p 58.

89 Telco Act s 581X.

90 Telco Act subsection 581W(4).

A similar negotiate-arbitrate provision is also provided for in Part 34B, where the ACCC is the arbitrator of last resort.[91] Part 34B also provides that the ACCC can make a code relating to Part 34B which would apply to 'eligible companies'. The ACCC is considering whether to make such a Code.

Currently, to our understanding Amplitel and Indara are part of carrier company groups and Waveconn is not part of a carrier company group. BAI Communications is also subject to Part 34B, which it considers is 'an unintended and unnecessary consequence' of the insertion of Part 34B, since BAI does not itself use its towers for any active telecommunications services.[92]

5.2.6. Divestment of towers means regulatory arrangements do not apply evenly to entities with similar operations

The new industry structure appears to have changed the ease of access to towers since mobile network infrastructure providers have the incentive to increase co-locations.

We are not aware of any particular concerns regarding the current regulatory arrangements. We note however that for an access seeker that is co-located on infrastructure that has now been divested, it likely means that the access seeker will need to enter into a new agreement with the new mobile network infrastructure provider. While some of the mobile network infrastructure providers are subject to the Part 34B access regime in the Telco Act, others are not.

Where the mobile network infrastructure provider is not subject to the Part 34B regime, there is no access to the negotiate-arbitrate regime, despite previous arrangements having this as a fall back. This means that there is no 'threat' of arbitrated pricing or safety net where a commercial agreement cannot be reached. While the recent divestments have highlighted this uneven application of the regulatory regime to mobile network infrastructure providers, there have been providers operating in the market prior to investment, such as BAI Communications. Consequently, this uneven application of regulation is not an entirely new issue caused by divestments.

We consider that the uneven application of the regulatory framework warrants further consideration and review by government. Changes to ensure the regulatory framework applies more consistently to entities with similar operations will likely require changes to definitions in the Telco Act or the introduction of new concepts to the Telco Act.

Preliminary Finding 17

The regulatory regime relating to carrier's access to towers, tower sites and facilities does not apply to non-carriers that are not part of a carrier group. For the regulatory regime to apply equally to mobile network infrastructure providers with similar operations will require legislative changes to the Telco Act.

The divestment of towers by the mobile network operators has exacerbated an uneven application of the regulatory regime between entities that are carriers and entities which are not carriers, but provide infrastructure services to carriers.

91 Telco Act s 581Z.

92 BAI Communications, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 5.

Preliminary Finding 18

The divestments have changed previous long-term relationships and now mean that there is not a regulatory 'safety net' for access to facilities in some circumstances.

6. Demand for provision of towers and access to them is derived from the demand of mobile network operators

Under the Direction, the ACCC is required to have regard to the kinds of matters (including the impact of costs) providers of towers and associated infrastructure consider in deciding to:

i. provide towers and associated infrastructure

ii. provide access to towers and associated infrastructure.

In this chapter, we consider the kinds of matters that the three major mobile network infrastructure providers Amplitel, Indara and Waveconn submitted that they consider in providing towers and providing access to towers. We also consider submissions from other mobile infrastructure providers such as NBN Co and Field Solutions Group.

For towers primarily used to provide retail mobile services, the demand for towers is derived from the demand of mobile network operators for those towers. To provide a full picture of the chain of demand, this chapter will consider what matters influence the incentives of mobile network operators to extend their mobile coverage. This includes incentives to co-locate on an existing tower and incentives to locate on a new tower build (whether through a build arrangement with a mobile network infrastructure provider or otherwise).

6.1. Where towers are primarily used to provide retail mobile services, the needs of mobile network operators drives the investment decisions of mobile network infrastructure providers

The major mobile network infrastructure providers (Amplitel, Indara and Waveconn) do not use the tower assets they own for their own purposes. These towers are predominately used by mobile network operators to provide retail mobile services. A wide range of other access seekers also use these towers to a lesser extent, including smaller wireless internet service providers, government networks, emergency service operators, mining and agriculture operators.[93]

Other mobile network infrastructure providers such as NBN Co and BAI Communications do use their towers to provide their own services, predominately fixed wireless access services and terrestrial television and radio respectively.[94] Consequently co-location of mobile network operator equipment on these towers is secondary to the primary purpose of NBN Co's and BAI Communication's towers.

The incentives for the major mobile network infrastructure providers (Amplitel, Indara and Waveconn) to provide towers includes incentives for building new towers. It also includes continuing support of existing towers, for example by maintaining the towers such that the towers and associated infrastructure remain safe for use. Both aspects of providing towers are influenced by the demand for mobile network operators for access to the infrastructure. It is also influenced by whether the mobile network operators' willingness to pay for access to the infrastructure outweighs the cost.

We have heard from mobile network infrastructure providers that without a commitment from a mobile network operator to be the tenant on a particular site, there is no incentive for them to build new infrastructure or maintain unattractive sites. This is because the sole purpose of

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93 Amplitel, *Our Customers*, accessed 4 April 2023; Australia Tower Networks (now Indara), *Public submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 6; Waveconn, *Public submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

94 NBN Co, *Public submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 2; BAI Communications, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 1.

the tower is to generate revenue,[95] and for the major mobile network infrastructure providers revenue is primarily generated from mobile network operators.

Amplitel submitted that rational owners of infrastructure will build infrastructure for expected users of that infrastructure within a certain period.[96] In addition, the mobile network operator's radio frequency requirements determine the quantity of equipment and the height at which that equipment is installed.[97]

Indara submitted that the business case for a new location is typically based on commitments from the anchor tenant.[98] Field Solutions Group also submitted that mobile network infrastructure providers will only invest in providing new infrastructure where there is a commercial agreement with an access seeker.[99] This is because the costs for acquiring land, undertaking relevant approvals, and constructing the tower need to be recovered by way of licence fees across the term of the agreement with access seekers.[100]

Demand for mobile network infrastructure provided by the major mobile network infrastructure providers is derived ultimately from downstream retail demand for mobile network services. Value is not generated from obtaining access to the tower infrastructure in and of itself, but from the downstream retail service to consumers that access to the tower infrastructure facilitates.

6.1.1. Mobile network operators consider issues including cost, benefits to consumers, and the overall degree of mobile market competition in deciding to access existing towers or seek new tower builds

Waveconn submits that mobile network operators are capital constrained for deployment of new towers, including in urban areas where commercial returns are more attractive.[101] Given the major mobile network infrastructure providers (Amplitel, Indara and Waveconn) rely on commitments from mobile network operators, the commercial returns of a mobile network operator are a key investment driver.

The business case for a mobile network operator to seek a new site is ultimately considered in the context of the overall state of competition in retail mobile market. Optus submits that competition between the mobile network operators has led to significant investment in and expansion of mobile networks.[102] Telstra submits that its network differentiation compared with other mobile network operators is key to driving investment in expanding or improving coverage in regional and rural areas.[103] Telstra also submits that the cost of deploying new mobile infrastructure in regional areas are generally higher than urban areas, and that the commercial returns are lower due to the smaller number of customers covered by the site.[104] During the industry stakeholder forum, we heard that the more regional, and rural areas experience exponentially diminishing returns in terms of generating revenue.[105]

Telstra submits that whether it invests in additional sites is not solely based on whether the revenue to be generated from additional customers in the new coverage area would

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95 NBN Co, *Public submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 5.

96 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 11.

97 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 12.

98 Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 7.

99 Field Solutions Group (FSG), *Public submission to the Regional Mobile Infrastructure Inquiry*, 10 August 2022, p 9.

100 Field Solutions Group (FSG), *Public submission to the Regional Mobile Infrastructure Inquiry*, 10 August 2022, pp 9-10.

101 Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

102 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry,* September 2022, p 3.

103 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 34.

104 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 11.

105 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

outweigh the cost of acquiring and operating that site.[106] Telstra submits that an 'indirect return' from higher national market share can offset poor returns on a site-level basis.[107] Consequently, geographic coverage advantage compared with other mobile network operators, and the ability to acquire market share, are important factors that drive mobile network operator's investment decisions.[108] Vocus submits that this coverage dominance of Telstra means that Telstra has limited, if any, incentive to share infrastructure with other mobile network operators.[109]

Mobile network operators consider the revenues they would generate from customers that live outside the new coverage areas but nonetheless value a mobile service that provides coverage to it. Telstra submitted that its customers place a high value on its network coverage and maintaining this competitive advantage can offset the higher costs of building and upgrading mobile infrastructure in regional and rural areas.[110] Telstra is driven by capturing revenue in the national retail mobile market.[111] Amplitel also submitted that access seekers aim to maximise the benefit of a site to their network against the costs of establishing and maintaining the site.[112]

TPG Telecom submits that the potential competitive impacts on downstream markets led to practices such as reserving tower space on a site.[113] TPG Telecom submits that such practices are designed to increase the barriers for a competitor mobile network operator co-locating on a tower site where another mobile network operator is already located.[114] Waveconn also submitted that mobile network operators do not have the incentive to encourage co-locations on tower infrastructure, since increased co-locations will drive increased competition for mobile network operators.[115]

Telstra submitted that once it identifies a need to extend or improve its mobile coverage or capacity by establishing a new base station, small cell or in-building solutions, Telstra undertakes a search to assess the range of possible candidate sites and ranks them based on criteria such as: planning considerations, transmission accessibility, power accessibility, coverage delivered, and the nature and location of existing network infrastructure.[116] Amplitel submits that carriers are 'very particular' about site choice and this limits where new sites can be built.[117] The considerations on the mobile network infrastructure provider side include the type of land available, the local community's acceptance of mobile infrastructure and costs for access to land.[118]

During the industry stakeholder forum, we heard that there are differing business cases for an anchor tenant compared to a second or third mobile network operator seeking to co-locate.[119]

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106 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 33.

107 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 12.

108 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 33.

109 Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 1.

110 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 34.

111 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 33-34.

112 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 18.

113 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

114 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

115 Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 2.

116 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 33.

117 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 18.

118 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 19; Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, pp 9-10, 12.

119 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

6.1.2. Governments have provided funding assistance to mobile network operators to reduce the cost of investing to improve regional coverage

Demand for new infrastructure and services also comes from governments. Waveconn submits that government funding is required to incentivise deployment in regional areas.[120] Waveconn also submits that even with government funding, the commercial business case can remain marginal and a low priority for mobile network operators.[121]

Numerous state and federal government initiatives have been put in place to reduce the cost and improve the viability of mobile network operators investing in improved coverage in regional, rural and remote areas.

For example, the Mobile Black Spot Program, an initiative that is supported by the Federal Government as well as co-contributions from state and local governments, mobile network operators, businesses and local communities, have generated investment of more than $875 million and has resulted in the delivery of more than 1,270 mobile base stations across Australia.[122] To date, the vast majority of Mobile Black Spot Program sites have been built by Telstra.[123] However, there is a low rate of co-location on the sites that have been co-funded by the Mobile Black Spot program.

Sites that are co-funded under the Mobile Black Spot Program broadly operate under the same legal framework as sites built entirely on a commercial basis. Mobile network operators that build a site for their own purposes must allow carriers to access that site on a commercial basis, as governed by the Telco Act and discussed further in chapter 5.

Other government programs that have been put in place for similar objectives including:

- The Western Australian Government's Regional Mobile Communications Program and the Regional Telecommunications Project both of which combined have resulted in $125 million investment to expand mobile broadband and a 60 per cent increase in WA's mobile coverage.[124]
- The NSW Government has established co-contribution programs to extend mobile coverage to facilitate services and infrastructure co-location, such as the neutral host model and the active sharing model. The NSW Government is supporting this through its $300 million Mobile Coverage Project of which $30 million has been allocated to the Mobile Coverage Program's Active Sharing Partnership.
- The Victorian Government's $300 million Connecting Victoria mobile program where the Victorian Government would partner with mobile network infrastructure providers and mobile network operators to build 309 new mobile towers, upgrade 492 towers to 5G, adapt 170 towers for multi-carrier use, etc.[125]

We have received submissions that the low rate of co-location on Mobile Black Spot Program towers is a result of the underlying incentives created by the program.[126] Even

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120 Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

121 Waveconn, *Public Submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

122 Department of Infrastructure, Transport, Regional Development, Communication and the Arts (DITRDCA), *Mobile Black Spot Program*, accessed 24 March 2023.

123 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 11; ACCC, *Mobile Infrastructure Report 2022*, 9 September 2022, p 13.

124 Department of Primary Industries and Regional Development, *Digital Connectivity - Regional Telecommunications Project*, accessed 24 March 2023.

125 Department of Jobs, Skills, Industry, and Regions, *Boosting mobile connectivity across Victoria*, accessed 24 March 2023.

126 BAI Communications, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 2; Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2; TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 2.

though the Mobile Blackspot Program includes provisions for additional mobile network operators to co-locate on funded infrastructure, co-location generally occurs after funding has been awarded and this may not suit for an additional mobile network operator. During the industry stakeholder forum, stakeholders raised that for sites that were historically co-funded, there is no mechanism in place for a second or third co-locator to benefit from that subsidy.[127]

In previous rounds of the Mobile Black Spot Program, sites were awarded funding for generating new coverage. This meant that there was the incentive for mobile network operators with more expansive existing coverage to extend that coverage,[128] disincentivising those with smaller coverage footprints from participating.

A concern raised at the industry stakeholder forum was that for smaller mobile network operators or other providers, such as those providing neutral host solutions, to participate in funding would require investment in areas beyond the coverage footprint of Telstra or Optus.[129] This results in 'islands' of coverage which are distant from the rest of the network of a smaller mobile network operator. While such government funding programs may provide immediate benefits to consumers in the form of coverage or improved network quality, some stakeholders submitted this outcome is in tension with competitive outcomes due to further entrenching Telstra's market dominance.[130]

Some stakeholders also submitted that open access requirements that are now part of the Mobile Black Spot Program have not delivered greater benefits to regional consumers, in terms of multiple mobile network operators co-locating on government funded infrastructure.[131] Consequently, stakeholders submitted that open access requirements have not provided a better return on public money spent.[132]

Some stakeholders submitted that neutral host models would lead to more infrastructure sharing and competition in regional areas, since it would allow all mobile network operators to provide services on the same site.[133] However at the industry stakeholder forum, we heard concerns that the significant differences in coverage between the mobile network operators means there are limited locations where all three of the mobile network operators could benefit from the neutral host model. Vocus submitted that Telstra's significant coverage advantage means that Telstra has little incentive to pursue infrastructure sharing opportunities such as neutral host models.[134] Vocus also submitted that the success of neutral host trials to date have been hampered by one or more mobile network operators refusing to participate.[135] This suggests that if government funding programs were focussed on multi-carrier infrastructure sharing, such sharing would need to be mandated.

Preliminary Finding 19

The provision of new towers is a commercial decision of mobile network infrastructure providers driven by demand from mobile network operators, other service providers and government.

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127 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

128 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 3.

129 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

130 BAI Communications, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 3; Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 1.

131 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 11.

132 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 3.

133 BAI Communications, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 3; Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, pp 2-3.

134 Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2.

135 Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2.

Preliminary Finding 20

Mobile towers that were previously funded by government are accessible on the same terms as towers that were not government funded.

7. The impact of mobile market competitive dynamics on regional mobile coverage and demand for towers

Under the Direction, the ACCC is required to have regard to how the kinds of matters discussed in chapter 6 may affect the provision of greater mobile coverage.

In the previous chapter 6, we outlined that demand for towers primarily used to provide retail mobile services is derived from demand from mobile network operators.

This chapter examines how that demand may affect the provision of greater mobile coverage. The provision of greater mobile coverage includes both the provision of new towers and new mobile coverage, as well as greater capacity or deeper coverage where there is existing coverage. This chapter examines how the competitive dynamics in the retail mobile market affects investment in regional mobile infrastructure to provide greater mobile coverage.

7.1. Gaining and retaining market share is the biggest driver of providing greater mobile coverage

Numerous stakeholders submitted that providing greater mobile coverage in regional, rural and remote areas of Australia is 'uneconomical' or commercially unattractive.[136] There are several factors that mobile network operators balance in assessing the business case for providing greater mobile coverage, such as:[137]

- costs of accessing land
- the costs of building the infrastructure, associated quality and capacity relating to those costs, including for example connection to power and backhaul
- costs for mobile network equipment, such as antennas
- ongoing operational costs to maintain the site, including any commercial agreements such as fees to a mobile network infrastructure provider
- ease of access and maintenance
- direct revenues from the site
- whether investment will impact the mobile network operator's national retail mobile market share. This primarily factors in to the whether the location of the infrastructure is in a location the mobile network operator considers is important.

There are multiple scenarios where these factors as considered, including providing:

- new coverage
- competing mobile coverage, where there is another mobile network operator already providing mobile coverage
- improved quality of service or deeper coverage in areas where the mobile network operator is already providing retail mobile services.

We consider that mobile network operator's drive to maintain or obtain greater market share is the most significant consideration in deciding to invest to provide greater mobile coverage.

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136 For example, Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 4; TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 16; Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 45.

137 Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 33-34, 45; Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, September 2022, p 3.

Mobile network operators have little commercial inventive to invest in regional, rural and remote areas if providing new or increased coverage does not impact their market share. Field Solutions Group submits that there is a 'coverage divide' in Australia mobile networks, despite the efforts of competitors to compete on coverage.[138]

We recognise that for mobile network operators, investing in regional areas is commercially challenging and this challenge becomes greater as remoteness increases. Australia has a significant land mass, and much of inland Australia is sparsely populated. In some regional areas, significant investments by a mobile network operator are justified on the basis that there is sufficient additional demand within the coverage area and there is prospect of capturing market share in the national mobile market for customers that value coverage within that area.[139] However, the commercial returns for investment diminish the more remote the area is and the lower the population,[140] and in many of these areas only Telstra or Optus have network presence.

From a mobile network infrastructure provider perspective, Amplitel submitted that it considers whether its customer(s) (such as a mobile network operator) are willing to pay a fee that will recover Amplitel's costs plus a return.[141] Indara submitted that securing new locations and building towers is capital-intensive, time-consuming, and can be sensitive for communities.[142] This means that new towers are generally pursued in response to customer demand for a particular location.[143] Indara submitted that it requires a stable income stream for a long period to recover the cost of outlay for a new tower build.[144]

Mobile network infrastructure providers' ability to make regional, rural or remote infrastructure commercially feasible is highly dependent on mobile network operators' demand for the infrastructure. Mobile network operator's demand for mobile tower infrastructure is largely dependent on its ability to profit from access to regional, rural or remote infrastructure.

7.1.1. Telstra and Optus have made significant investments in regional, rural and remote areas despite the challenges, to differentiate themselves on geographic coverage

We understand that Telstra's commercial strategy is premised on being the leading mobile network provider in Australia, particularly in terms of geographic coverage.[145] Telstra's historical investments have had the objective of ensuring that Telstra maintains this network superiority over its rival network operators.[146]

Telstra has stated in market briefings that maintaining and extending network leadership is critical to its growth strategy and will underpin its ability to charge premium prices in the market.[147] Telstra submitted that despite the higher costs to Telstra for building and

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138 Field Solutions Group, *Public Submission to Regional Mobile Infrastructure Inquiry*, 10 August 2022, p 10.

139 For example, Telstra, *Public submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 11, 33-34.

140 For example, Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 4.

141 Amplitel, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 39.

142 Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 12.

143 Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 12.

144 Australia Tower Network (now Indara), *Public Submission to Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 14.

145 Telstra, *Telstra Submission to ACCC's Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 34.

146 Telstra, *Telstra Submission to ACCC's Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 34.

147 Telstra, *Telstra Investor Day Briefing Transcript 2021*, 17 September 2021, p 24.

upgrading mobile infrastructure in regional, rural and remote areas, it has invested in those areas due to customers placing a high value on geographic coverage.[148]

In urban areas, Telstra, TPG Telecom, and Optus each have strong network infrastructure and they exert competitive pressure on each other to densify their networks, deploy 5G technology upgrades, and invest in spectrum and fibre.[149] However, in regional areas, Optus submits that it has been Optus' competitive impact that leads to infrastructure-based competition between Optus and Telstra.[150]

Optus has made significant investments in its network infrastructure since it entered the market and typically invests over $1.5 billion in capital expenditure annually in its mobile network services.[151] Optus' investments in regional areas has driven Telstra to invest in response to ensure it maintains network leadership over its rivals.[152] Telstra has noted that it is competition in urban areas (where most customers live and work) and in particular competition for urban customers that value regional, rural and remote coverage, that is the primary driver to Telstra investing to maintain superior coverage.[153]

Telstra also has noted that given its history and prominence, it faces pressure from government and other stakeholders over its commitment to regional and rural Australia.[154] Telstra submitted that responding positively to these stakeholders by continuing to invest and innovate in service delivery in regional and rural areas is an important motivator in its decision making.[155]

Preliminary Finding 21

Although it is generally more costly to build and operate mobile network infrastructure in remoter areas, Telstra and Optus have made significant network investments in regional, rural and remote areas in order to differentiate on geographic coverage and gain or maintain market share in the national mobile market.

7.1.2. Telstra's advantages in regional areas could raise barriers to expansion for rival mobile network operators

Expanding coverage and improving the quality of mobile services is highly capital intensive. This challenge is significant in a country like Australia with a large geographical area, much of which is sparsely populated. In Australia, all mobile network operators incur large costs to increase regional, rural and remote coverage. This may result in only a small amount of gain

148 Telstra, *Telstra Submission to ACCC's Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 34.

149 ACCC, *Mobile Infrastructure Report 2022*, September 2022, p 6.

150 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*,14 September 2022, p 2.

151 Optus, *Public submission in response to ACCC market inquiry – Telstra and TPG application for merger authorisation for proposed spectrum sharing in regional Australia*, June 2022, p 9 at [1.20].

152 R Feasey, *Expert report of Richard Feasey, Annexure O to Telstra and TPG application for merger authorisation*, 20 May 2022, pp 25-26.

153 Telstra and TPG Telecom, *Public submission in response to ACCC Statement of Preliminary Views – Telstra Corporation Limited and TPG Telecom Limited arrangement for the sharing of active infrastructure and spectrum in regional Australia*, 1 November 2022, p 46 at [111].

154 Telstra and TPG Telecom, *Public submission in response to ACCC Statement of Preliminary Views – Telstra Corporation Limited and TPG Telecom Limited arrangement for the sharing of active infrastructure and spectrum in regional Australia*, 1 November 2022, p 46 at [113].

155 Telstra and TPG Telecom, *Public submission in response to ACCC Statement of Preliminary Views – Telstra Corporation Limited and TPG Telecom Limited arrangement for the sharing of active infrastructure and spectrum in regional Australia*, 1 November 2022, p 46 at [113].

in incremental population coverage, and may make it more difficult to justify investments in regional areas for some mobile network operators.[156]

The commercial incentives of mobile network operators will consider a range of factors in deciding where to extend coverage including the cost and benefits (network effects) arising from new or improved mobile coverage. These may not always align with the areas that communities consider need mobile coverage most.[157] TPG Telecom submits that policy makers and regulators could do more to incentivise network sharing.[158] TPG Telecom submits that this would lead to greater consumer choice in relation to retail mobile services available on government-funded tower infrastructure.[159]

Optus has previously noted that challenging market dynamics and government policy which have had the effect of entrenching Telstra's dominance have made it increasingly difficult to maintain its historic levels of investment.[160] Nonetheless, Optus noted that it has continued to invest in building a competitive mobile network infrastructure, which includes the broad rollout of 5G to urban and regional areas.[161]

We consider that Telstra's coverage advantage in regional areas strongly impacts Optus and TPG Telecom's incentives to invest more significantly in regional areas. It is unlikely that any of Telstra's competitors will have the realistic ability to absolutely match Telstra's network coverage in regional areas.

Neutral hosts are unlikely to have a significant enough effect that mobile network operators utilising the infrastructure will be able to challenge Telstra's coverage advantage to any great extent.

Preliminary Finding 22

Neutral host entrants are limited in their ability to build new tower infrastructure due the coverage disparity between the three mobile network operators.

Preliminary Finding 23

Mobile network operator's investment decisions and demand for new mobile infrastructure are significantly influenced by:

a) The nature of the retail mobile market. Geographic coverage is an aspect of retail mobile services valued by consumers, and it is the primary attribute that differentiates Telstra from Optus and TPG Telecom.

b) Access to spectrum.

156 For example, see Telstra, *Telstra submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 12.

157 For example, see I Lewis, *Public submission to the Regional Mobile Infrastructure Inquiry*, 4 August 2022, p 1.

158 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 2.

159 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 2.

160 Optus, *Public submission in response to ACCC market inquiry – Telstra and TPG application for merger authorisation for proposed spectrum sharing in regional Australia*, June 2022, p 67.

161 Optus, *Public submission in response to ACCC market inquiry – Telstra and TPG application for merger authorisation for proposed spectrum sharing in regional Australia*, June 2022, p 68.

7.2. Spectrum access is not currently a barrier to expansion, but the cost of deploying spectrum may be

Spectrum is a critical input into the supply of mobile network services. Spectrum is highly valuable and finite. Spectrum is the medium by which signals are carried between consumer devices and the mobile network operator's base station and to its wider network. Spectrum enables mobile network operators to provide coverage and capacity on their network. Without access to sufficient spectrum, operating a mobile network is highly uneconomical. Spectrum is therefore an influence on mobile network operator's demand for mobile towers.

We consider that Telstra, Optus, and TPG Telecom all currently have sufficient spectrum to supply mobile network services rural, regional, remote and peri-urban areas. All mobile network operators have sufficient access to low-band spectrum suitable for various mobile technology generations (e.g. 4G and 5G) which enable them to provide a wide geographic coverage. Similarly, all mobile network operators have sufficient access to mid-band and high-band spectrum which provide capacity on their network.

We understand that commercial reasons mean that some spectrum is not being utilised by mobile network operators that hold it. One of the reasons for this includes commercial relationships with the radio access network vendors and their licencing fees for deploying spectrum, which may mean that the cost of deploying spectrum acts as a barrier to providing greater mobile coverage.[162]

[162] Telstra and TPG Telecom, *Response to Optus' interest party submission and ors (Tranche 2) – Telstra Corporation Limited and TPG Telecom Limited arrangement for the sharing of active infrastructure and spectrum in regional Australia*, 28 July 2022, pp 36-37.

8. The implications of tower divestment on access to towers

The Direction requires the ACCC to consider the implications of tower divestment by the mobile network operators on access to towers.

8.1. Most towers are held by one entity, Amplitel

Amplitel holds the largest portfolio of mobile tower assets in Australia. This is especially the case in regional, rural and remote areas where it has the largest presence. Given Telstra has not fully divested its interest in Amplitel, we have heard ongoing concerns around whether the divestments overall have improved accessibility to towers. Due to the divestment, Amplitel may have the incentives to increase co-location.[163] However this may not apply equally across Amplitel's portfolio of assets and remoter towers may be more difficult or more costly to access.

In quantitative terms, there is a substantial gap between the number of towers operated by the three largest mobile network operators (Amplitel, Indara and Waveconn) and those of the smaller tower owners. Amplitel operates over 8,000 sites,[164] while Waveconn operates around 1,400 sites[165] and Indara owns over 4,300 sites.[166] These three operators between them operate around 13,700 sites, which is a substantial majority of the approximately 16,600 active mobile infrastructure sites being used by Optus, Telstra and TPG Telecom as at 31 January 2022.[167]

In contrast, BAI owns around 400 towers, not all of which are used for mobile equipment.[168] NBN Co submitted that it has access to approximately 2,400 sites across Australia for its fixed wireless access network, around 30 per cent of which are owned by other mobile network infrastructure providers and subject to co-location arrangements.[169] These sites are primarily built for fixed wireless purposes, with co-location for mobile equipment being a secondary purpose.[170] Being placed to maximise their fixed wireless coverage, these sites may not be in locations of interest to mobile network operators.[171]

Vocus submits that mobile network infrastructure providers have the incentive to provide neutral-host infrastructure solutions as they would benefit from multiple mobile network operators utilising their infrastructure.[172] Vocus also submits that mobile network operators would not lose any market advantage if all three mobile network operators were able to access the same neutral host infrastructure equally.[173] However since Amplitel is majority owned by Telstra, we consider that any incentive Amplitel has to provide neutral-host infrastructure may be outweighed by Telstra's concerns that such models could 'jeopardise optimal regional coverage outcomes'.[174]

Given the divestments are relatively recent, it is difficult to assess the impact of the new industry structure at this time.

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163 Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 8.

164 Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 8.

165 Waveconn, *Public submission to Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

166 Indara, *Empowering our Digital Future*, accessed 11 April 2023.

167 ACCC, *Mobile Infrastructure Report 2022*, September 2022, Table 4.6 on p 16.

168 BAI Communications, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 5.

169 NBN Co, *Public submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 3.

170 NBN Co, *Public submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 3.

171 NBN Co, *Public submission to the Regional Mobile Infrastructure Inquiry*, 8 August 2022, p 5.

172 Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2.

173 Vocus, *Public submission to the Regional Mobile Infrastructure Inquiry*, March 2023, p 2.

174 Telstra, *Public submission to Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 24.

Preliminary Finding 24

While there has been a decrease in vertical integration, most towers in regional and remote areas are owned by a Telstra related company, Amplitel.

Access to existing towers in remoter areas will largely depend on the commercial terms of this entity.

8.2. There are now different terms of access post-divestment compared with pre-divestment

8.2.1. Pre-divestment terms were less favourable towards co-location

Waveconn submitted that prior to investment, the vertical integration of the mobile network operators in terms of owning mobile tower infrastructure and providing retail mobile services, meant that they had incentive to frustrate access.[175] TPG Telecom submitted that Telstra engaged in practices that increased barriers to co-locate, including reserving tower space on a site.[176] TPG Telecom submitted that Telstra's conduct had the effect of increasing the second operators costs to co-located given they had to undertake to strengthen the site to account for Telstra's future capacity requirements as well as the second mobile network operators' equipment. TPG Telecom submitted that the additional costs to strengthen a site can be prohibitive.[177]

TPG Telecom also submitted that historically, the second mobile network operator locating on a tower was given an artificially lower position on the tower, which led to inferior signal propagation compared to that which is available to the mobile network operator that owned the tower.[178]

Waveconn submitted that where mobile network operators owned infrastructure, the mobile network operators had the incentive to ensure that they had the best access to the infrastructure they owned and to restrict or frustrate access of competitors.[179] In addition, infrastructure costs were cross-subsidised by a mobile network operators revenue, further reducing its incentive to maximise access.[180] Waveconn also submitted that prior to divestment, co-location requests from competing mobile network operators were considered a distraction.[181]

Pre-divestment arrangements between the mobile network operators would typically involve a capital contribution as well as an ongoing ground rent for towers the mobile network operator was co-located on.[182] Generally pricing was on an equipment basis and any upgrades were at the access-seeker's expense.[183]

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175 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 8.

176 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

177 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

178 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

179 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 8.

180 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 8.

181 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 8.

182 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 10.

183 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 10.

8.2.2. Post-divestment terms appear focussed on mobile network infrastructure providers recovering the cost of divestment purchases by increasing co-locations

We have heard that the investors behind recent tower divestments are focused on reliable, long-term income streams from stable asset classes.[184] The mobile network infrastructure providers have the financial incentive to maximise utilisation on their infrastructure.[185] We have consistently heard that mobile network infrastructure providers are now incentivised to provide access to towers post-divestment.

Amplitel notes that one of its strategic objectives is to 'increase utilisation of its infrastructure by providing better access'.[186] Waveconn also highlights that commercial arrangements between mobile network infrastructure providers and tenants have evolved over time to become increasingly tenant friendly.[187]

As a consequence, Indara submits that the mobile network infrastructure provider operating incentives align well with access-seeker requirements.[188] For example, Indara submits that there are quicker application assessment processes, structural innovations to hold more equipment and mobile network infrastructure providers endeavouring to proactively support customer equipment requests.[189] Waveconn notes that mobile network infrastructure providers have a greater commercial incentive to provide more efficient access to infrastructure than when the infrastructure was vertically integrated with mobile network operators – tenants are now customers, rather than direct competitors.[190] This assertion appears to be supported by the rate of co-location on some towers.[191]

Mobile network operators are now generally able to avoid the higher upfront capital costs associated with building new towers, and instead pay an ongoing rental stream that more closely aligns with the customer revenues.[192]

Field Solutions Group considers that one of the impacts of divestment, given that new tower owners are looking to maximise their returns, is a 'freeing up' of space on towers of what would otherwise be reserved space.[193] TPG Telecom submitted that the structural change in the mobile network infrastructure market may solve some of the legacy access issues within the industry, however it may also amplify other issues such as increasing the incentives for rent-seeking behaviour by tower companies.[194]

While it is too early to evaluate how the divesture of tower assets will impact access to towers it does appear that the trend is positive in that access to towers appears easier for some towers. However, we have also heard concerns from mobile network operators that they have not seen increased competition for existing mobile infrastructure across the board.

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184 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 15.

185 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 15.

186 Amplitel, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 September 2022, p 8.

187 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

188 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 15.

189 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 15.

190 Waveconn, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 29 September 2022, p 1.

191 For example, Indara outlines that it is aiming for tenancy ratios that exceed 2.5x across its portfolio, with existing tenancy ratios being around 1.5x or above by region. Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 6.

192 Australia Tower Network (now Indara), *Public submission to the Regional Mobile Infrastructure Inquiry*, 6 September 2022, p 14.

193 Field Solutions Group, *Public Submission to Regional Mobile Infrastructure Inquiry*, 10 August 2022, p 8.

194 TPG Telecom, *Public Submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 7.

During the industry stakeholder forum, we heard that some views that there was not competition consistent across tower sites.[195] Some industry stakeholders noted that competition for existing sites only increases in sites where there is a substitutable site nearby, however this is not often the case.[196]

During the industry stakeholder forum, we heard that mobile network operators are always looking to extend mobile coverage but will only invest where there is a business case to do so.[197] While the goal for mobile network infrastructure providers may be to increase co-locations, the costs of co-locating on existing infrastructure may be prohibitive to mobile network operators in co-locating onto such infrastructure.[198] This suggests that prices for access to towers may not have decreased post-divestment and consequently it is not easier to co-locate in all regions, despite there being easier processes for co-location.

Preliminary Finding 25

Historically, the arrangements between the mobile network operators involved considerations broader than the costs of providing access to a tower. The mobile network infrastructure providers offer different terms of access which generally appear to be simpler and more aligned to mobile network operators' operating incentives.

Preliminary Finding 26

Mobile network infrastructure providers have an incentive to promote access to their tower assets, to increase the revenues they generate from the tower.

195 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

196 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

197 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

198 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

9. Temporary mobile roaming

The final issue considered by this Inquiry, as required by the Direction, is whether it is feasible to provide temporary mobile roaming during natural disasters and other such emergencies.

We define temporary mobile roaming as:

> The ability for a consumer device to connect to a mobile network not owned or operated by their nominal mobile network provider during a specified emergency event, for a limited time and in a limited geographical area that is not determined by mobile network operators but by specified by federal/state/territory governments in consultation with emergency agencies.

This means that users could connect to and use another mobile service operator's network during a natural disaster or emergency.

9.1. We consider that temporary mobile roaming is technically feasible

Several stakeholders submitted that mobile roaming is already feasible, with roaming agreements in place domestically and internationally. International roaming has been broadly adopted. Domestic roaming agreements have also been used in Australia, for example with TPG Telecom using Optus' 3G network for roaming. Other countries are investigating or implementing a temporary mobile roaming capability for emergency services including Japan, Canada and the United States of America.[199] In the Netherlands, a commercial solution (Lyfo) provides a service that allows first responders to switch between mobile networks using a dual SIM solution.[200]

The 3rd Generation Partnership Project (3GPP) is a body which develops standards for mobile telecommunications and defines how mobile devices and networks can 'talk' to each other. 3GPP has recently ratified temporary disaster roaming standards for 5G networks that introduce capabilities to mitigate the risk to the resilience of the surviving network.[201] Application of this standard assumes that standard domestic roaming is already established between network operators.[202] However, there are currently no standards for 4G and earlier generation networks. This would therefore likely require a bespoke solution for the Australian market.[203]

During this Inquiry, the mobile network operators submitted that while temporary mobile roaming is technically feasible, it is a complex solution to implement. Although temporary mobile roaming technically works in a similar way to domestic mobile roaming, Telstra noted that normal domestic roaming is not designed to be activated and deactivated on a temporary basis.[204]

While we consider that temporary mobile roaming is technically feasible, there are range of technical and policy factors that require consideration prior to any decision to implement temporary mobile roaming during emergencies.[205]

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199 Ministry of Internal Affairs and Communications, *Publication of the First Report of the Study Group on Roaming Among Service Providers in a Time of Emergency and Results of Solicitation of Opinions*, accessed 20 March 2023. Government of Canada, *Memorandum of Understanding on Telecommunications Reliability*, accessed 22 March 2023. Federal Communications Commission, *Wireless Network Resiliency During Disasters*, accessed 6 April 2023.

200 The Critical Communications Review, *T-Mobile offers guaranteed mobile coverage with new Lyfo.NET solution*, 1 December 2022, accessed 20 March 2023.

201 Telstra, *Public submission to Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 5.

202 TPG Telecom, *Public submission to Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 13.

203 Telstra, *Public submission to Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 6.

204 Telstra, *Public submission to Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 55.

205 Telstra, *Public submission to Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 53.

9.2. There are technical and policy factors that require further examination

9.2.1. There are technical parameters that need to be considered and managed

Several industry submissions noted the risk to the resilience of the remaining operational network(s) if temporary mobile roaming was activated. The main concern is that this/these network(s) would become overloaded and make the network unusable for all users. There are two ways the network can become overloaded:[206]

- the volume of users trying to authenticate on the network increases dramatically, or
- once authenticated, extra users then add additional load to the network which it would be unable to accommodate without some level of traffic control or prioritisation.

We understand that existing network capacity (both base station and backhaul), especially for regional, rural and remote areas, is based on normal population characteristics and utilisation of the network (including some overhead to account for changes in normal user demand). It is likely that demand would be greater than was provisioned for if temporary mobile roaming were implemented. For example, Optus observed that voice traffic doubled at the height of the Lismore floods.[207]

Capacity will also be dimensioned based on a mobile network operator's market share. A mobile network operator with only a small market share could see a significant increase in traffic if it is the only operational network during an emergency. Optus also submitted that if this capacity increase was to be managed, significant investment would be required to invest in additional capacity that would not otherwise be commercially justified.[208] TPG Telecom submitted that adding network capacity takes time and cannot be quickly added at short notice as this requires site and network upgrades.[209]

Increased traffic would also increase the power load on the network (including the base station and backhaul) which could require more power and accelerates the depletion of power reserves (for example, battery back-ups).[210] This could lessen the duration of the network(s) that remain operational. The mobile network operators also highlighted that the likelihood that one network is not affected by a disaster or an emergency that disrupts other networks, or that the sole network survives, is likely to be very low.[211]

We have heard several ways in which these issues could be addressed, including restricting temporary mobile roaming to a relatively small geographic area.

Several stakeholders commented that traffic restrictions could be used to manage congestion such as restricting users and/or traffic classes. The following factors would need to be considered:

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206 For example, refer to Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 50; TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 14.

207 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*,14 September 2022, p 7.

208 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 7.

209 TPG Telecom, *Public submission to the Regional Mobile Infrastructure Inquiry*, 5 August 2022, p 14.

210 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 56; Australian Mobile Telecommunications Association (AMTA), 1 September 2022, *Public submission to the Regional Mobile Infrastructure Inquiry*, page 8.

211 Telstra, *Public Submission to the ACCC's Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 53 and Australian Mobile Telecommunications Association, 1 September 2022, *Public submission to the Regional Mobile Infrastructure Inquiry*, p 9.

- whether customers on the 'home' network continue to receive their agreed level of service or if this is reduced to increase capacity for temporary mobile roaming users
- whether temporary mobile roaming users are only allocated spare capacity on a network, noting that capacity upgrades require upfront changes to passive and active infrastructure
- what services (voice, text and/or data) are provided to temporary mobile roaming users
- whether temporary mobile roaming is restricted to priority users, for example emergency services personnel.[212]

We have heard that handset and spectrum limitations would also need to be considered.[213] However, we understand that most recent handsets are able to support most of the 3GPP bands and is unlikely to be a barrier to enabling temporary mobile roaming.

9.2.2. There may be alternative solutions

Any temporary mobile roaming solution should be considered in the wider policy context of improving telecommunications resilience, capacity and coverage during natural disasters. Several submissions noted that there may be alternative policy considerations to temporary mobile roaming. They noted the importance of network hardening and resilience efforts to address improve power supply.

The Australian Communications and Media Authority report into the impacts of the 2019-2020 bushfires found the majority of mobile base station outages could be attributed to power outages with only three per cent of outages caused by fire damage to telecommunications facilities.[214] Optus submitted that 'the resilience of power should also be considered in any discussion about availability, resilience or role of mobile services during times of natural disaster or emergency'.[215] TPG Telecom submitted that addressing temporary power issues to mobile sites would likely resolve most mobile network outages in emergency situations and reduce the need for temporary mobile roaming.[216] Field Solutions Group also submitted that 'maintaining network up times, including restoration of service, is key during these times'.[217]

Attendees at our three stakeholder forums also commented that temporary mobile roaming is one possible solution, but multiple options are needed during an emergency in case one or more options fail. Several stakeholders at our consumer stakeholder forum commented that they lived in areas without coverage and would not directly benefit from temporary mobile roaming.[218] Stakeholders at our emergency services forum were of the view that temporary mobile roaming could complement alternative solutions but would not deliver the 'mission critical' capabilities required for first responders and other frontline services.[219]

Stakeholders at our industry stakeholder forum suggested that the if temporary mobile roaming were a policy priority, a working group with the mobile network operators and key emergency service agencies from various levels of government could be established.[220] This

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212 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, pp 52-53.

213 For example, Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 7; Department of Regional NSW, *Public submission to the Regional Mobile Infrastructure Inquiry*, 19 August 2022, p 7.

214 Australian Communications and Media Authority, Impacts of the 2019–20 bushfires on the telecommunications network, April 2020, pp 7 – 9. Accessed 21 June 2022. This part of the report looks at facilities that experienced outages of four hours or more.

215 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 5.

216 TPG Telecom, *Public submission to ACCC Regional Mobile Infrastructure Inquiry*, 5 August 2022, pp 4, 15.

217 Field Solutions Group, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 11 August 2022, p 16.

218 ACCC, *Consumer Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 22 February 2023.

219 ACCC, *Emergency Services Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 2 March 2023.

220 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

working group could consider the broader policy context in which temporary mobile roaming could be implemented.[221]

Preliminary Finding 27

Temporary mobile roaming is technically feasible although there are questions of complexity, risk and cost that will need to be further considered against alternative solutions.

9.3. Support systems and business processes required

9.3.1. The business support systems will likely be the most difficult aspect of implementing a temporary mobile roaming solution

Temporary mobile roaming is a relatively new concept that requires integration of the network and business operational systems of the three mobile operator networks. Optus argue there is no business process in place for temporary roaming.[222] The mobile network operators submitted that there are changes required to establish network capabilities, overlay procedures and IT system interfaces. Additional capacity requirements are required, including additional signalling capacity in core networks.

Optus' view is that a permanent build is required as the required hardware and software cannot be easily or quickly deployed at short notice.[223]

The mobile network operators also raised issues of billing and how customer usage would be tracked or invoiced. Records of usage would also need to be kept for transfer to each network operator after the disaster has passed. This is so customer's usage can be updated and for invoicing purposes for the outage network.[224]

9.3.2. Regulatory and governance frameworks would need to be developed

Submissions and feedback through the consultation process suggested that activation and de-activation of temporary mobile roaming is a decision that could be made by a government or regulatory body. This would require the cooperation of mobile network operators.

The ACCC consulted with key Commonwealth, State and Local government agencies and authorities involved in disaster management response and coordination. Attendees at our Emergency Services stakeholder forum suggested a working group is established to develop protocols and triggers for activating temporary mobile roaming. There was agreement that the development of protocols would initially sit with the Commonwealth as telecommunications are a federal matter.[225] There will also need to be mechanisms in place for defining the geographic area where temporary mobile roaming is to be implemented.

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221 ACCC, *Industry Stakeholder Forum for the Regional Mobile Infrastructure Inquiry*, 16 March 2023.

222 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 7.

223 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 7.

224 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 56.

225 Subsections 313(4A) and 313(4B) of the Telco Act outline the obligations of carriers and carriage service providers to provide assistance if a national emergency is declared or a disaster or state of emergency. Section 314 of the Telco Act outlines the terms and conditions on which help is to be given.

Preliminary Finding 28

There are changes required to support systems and business processes to enable temporary mobile roaming.

9.4. Associated time and costs expected

9.4.1. A temporary roaming capability will take time to develop and deploy

The time taken to develop and implement a temporary mobile roaming solution will depend on the solution requirements. As a guide, the 3GPP standard for temporary disaster roaming for 5G networks was ratified in June 2022. Telstra submitted that it expected it would take 18-24 months to implement the functionality and then more time to be rolled out into the network.[226]

9.4.2. The costs to develop and deploy a temporary mobile roaming capability are difficult to quantify

Mobile network operators submitted that there will be costs to increase capacity in the network and time associated. These costs include increases to network capacity (both backhaul and base stations), software and vendor equipment upgrades and changes required to business processes and systems. Telstra advised that most of the costs will be incurred to develop and implement any new traffic management capabilities and processes to activate and deactivate temporary mobile roaming.[227]

Commercial arrangements will also need to be agreed upon.

The National Farmers Federation submitted that appropriate mechanisms are to be investigated so that 'costs are appropriately accounted for attributed to the right carriers/customers if roaming was to be put in place during these periods'.[228]

Mobile network operators submitted that there are likely to be significant costs to establish a temporary mobile roaming capability which may depend on where temporary mobile roaming is enabled and what services are supported. Optus noted that a temporary mobile roaming capability is likely to cost 'hundreds of millions of dollars'.[229] We have not verified these cost estimates and we consider further scoping work is required to establish the likely costs to develop and implement a temporary mobile roaming capability in Australia. Indicative estimates may be available from other jurisdictions who are also considering temporary mobile roaming, although we note they are only in the early stages of implementation.

Preliminary Finding 29

The associated time and costs expected with temporary mobile roaming will depend on the scale and scope of the temporary mobile roaming and the level of technical and operational difficulty required in implementing such a capability across the mobile network operators.

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226 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 56.

227 Telstra, *Public Submission to the Regional Mobile Infrastructure Inquiry*, 30 August 2022, p 59.

228 National Farmers Federation, *Public submission to the Regional Mobile Infrastructure Inquiry*, 16 August 2022, p 7.

229 Optus, *Public submission to the Regional Mobile Infrastructure Inquiry*, 14 September 2022, p 6.

10. Consolidated list of preliminary findings

Regional mobile consumer experiences and perspectives	
Preliminary Finding 1	Consistent with previous reports and inquiries, regional, rural and remote Australians consider mobile services to be vitally important but are concerned with coverage and congestion issues.
Preliminary Finding 2	Consumers in regional, rural and remote areas of Australia, including in remote Indigenous communities, experience quality of service levels that can be significantly different to urban areas.
Preliminary Finding 3	There can be options available to consumers to improve their mobile coverage or use an alternative way to access the Internet. However, where these options are available, options are not always known to consumers or can be expensive.
Preliminary Finding 4	Increasing instances of natural disasters in recent years significantly resonates with consumers, who have a heightened need for access to reliable communications services during such disasters. Consumers consider reliable and resilient mobile services are particularly necessary during natural disasters.
Preliminary Finding 5	Reliable access to the internet is an increasing issue in the agriculture industry. Mobile connectivity can impact how competitive a farm is and can also reduce costs for farmers.
The costs of providing towers and associated infrastructure	
Preliminary Finding 6	Tower site design, establishment and construction costs generally increase by remoteness.
Preliminary Finding 7	New tower design and construction costs generally consider accommodating at least two tenants in urban areas. In remoter areas, it is less likely that a new tower will be built with capacity to support more than one tenant. The costs of new towers are impacted by the demand for co-locations. In rural and remote areas, there appears to be a higher cost of co-location after the initial build for second or third mobile operators due to the need to upgrade or strengthen towers to support additional equipment
Preliminary Finding 8	For ongoing costs of tower maintenance, the cost of personnel mobilisation are impacted by region while other costs are not impacted by region.

Preliminary Finding 9	Options for capacity upgrades to meet consumer demand for mobile services are more limited in regional, rural and remote areas compared with urban areas.
Land access	
Preliminary Finding 10	Based on stakeholder submissions and data we collected, there is considerable variance in land access costs across states and territories, areas of remoteness and public versus private property owners.
Preliminary Finding 11	Several industry stakeholders report that Government/Crown land is typically more expensive than private land.
Preliminary Finding 12	Several stakeholders argue that streamlining and reforming state and territory planning rules may better facilitate infrastructure deployment. This includes reforms to access costs to Crown land, reconsidering minimum lot sizes for towers and giving non-carriers similar tower planning exemptions to carriers.
Existing commercial and regulatory arrangements for tower access	
Preliminary Finding 13	Each mobile network operator has a strong relationship with at least one mobile network infrastructure provider, due to the terms of the mobile network operator's recent sale of tower assets to that respective mobile network infrastructure provider.
Preliminary Finding 14	Fee arrangements appear to vary substantially between mobile network infrastructure providers and mobile network operators, and by region. It does not appear that operational costs or capital costs are consistently considered between mobile network infrastructure providers in their fee arrangements.
Preliminary Finding 15	The fees for access to towers are impacted by the divestment transactions in that a return on investment for the cost of purchasing the tower assets is a factor that mobile network infrastructure providers consider in establishing access costs.
Preliminary Finding 16	It is too early to tell whether current commercial arrangements are effectively facilitating access to towers. There is some uncertainty around how the industry will operate post-divestment.
Preliminary Finding 17	The regulatory regime relating to carrier's access to towers, tower sites and facilities does not apply to non-carriers that are not part of a carrier group. For the regulatory regime to apply equally to mobile network infrastructure providers with similar operations will require legislative changes to the Telco Act. The divestment of towers by the mobile network operators has exacerbated an uneven application of the regulatory regime between entities that are carriers and entities which are not carriers, but provide infrastructure services to carriers.

Preliminary Finding 18	The divestments have changed previous long-term relationships and now mean that there is not a regulatory 'safety net' for access to facilities in some circumstances.
Demand for provision of towers and access to them is derived from the demand of mobile network operators	
Preliminary Finding 19	The provision of new towers is a commercial decision of mobile network infrastructure providers driven by demand from mobile network operators, other service providers and government.
Preliminary Finding 20	Mobile towers that were previously funded by government are accessible on the same terms as towers that were not government funded.
The impact of mobile market competitive dynamics on regional mobile coverage and demand for towers	
Preliminary Finding 21	Although it is generally more costly to build and operate mobile network infrastructure in remoter areas, Telstra and Optus have made significant network investments in regional, rural and remote areas in order to differentiate on geographic coverage and gain or maintain market share in the national mobile market.
Preliminary Finding 22	Neutral host entrants are limited in their ability to build new tower infrastructure due the coverage disparity between the three mobile network operators.
Preliminary Finding 23	Mobile network operator's investment decisions and demand for new mobile infrastructure are significantly influenced by: c) the nature of the retail mobile market. Geographic coverage is an aspect of retail mobile services valued by consumers, and it is the primary attribute that differentiates Telstra from Optus and TPG Telecom. d) Access to spectrum.
The implications of tower divestment on access to towers	
Preliminary Finding 24	While there has been a decrease in vertical integration, most towers in regional and remote areas are owned by a Telstra related company, Amplitel. Access to existing towers in remoter areas will largely depend on the commercial terms of this entity.
Preliminary Finding 25	Historically, the arrangements between the mobile network operators involved considerations broader than the costs of providing access to a tower. The mobile network infrastructure providers offer different terms of access which generally appear to be simpler and more aligned to mobile network operators' operating incentives.

Preliminary Finding 26	Mobile network infrastructure providers have an incentive to promote access to their tower assets, to increase the revenues they generate from the tower.
Temporary mobile roaming during natural disasters and other such emergencies	
Preliminary Finding 27	Temporary mobile roaming is technically feasible although there are questions of complexity, risk and cost that will need to be further considered against alternative solutions.
Preliminary Finding 28	There are changes required to support systems and business processes to enable temporary mobile roaming.
Preliminary Finding 29	The associated time and costs expected with temporary mobile roaming will depend on the scale and scope of the temporary mobile roaming and the level of technical and operational difficulty required in implementing such a capability across the mobile network operators.

Attachment A: Definitions and terms used in this report on preliminary findings

3GPP	The 3rd Generation Partnership Project is an umbrella term for a consortium of mobile operators, vendors and international standards organisations that develop protocols and interfaces **for** mobile telecommunications, including 3G, 4G and 5G standards.
ACCC	Australian Competition and Consumer Commission
Active Infrastructure	Telecommunications assets and equipment with active radio and electronic components for signal transmission & reception including but not limited to, transmitters, receivers, base station electronics, antennae, feeders, backhaul connectivity and other requisite equipment and associated civil and electrical works required to provide telecommunications services.
Associated Infrastructure	Includes: • equipment sheds, ducts, pits, huts, shelter and feeder, foundations • plant and power infrastructure such as cooling, batteries, solar panels, generators or power lines • associated passive or active radio access network subsystems installed on or connected to Tower Sites • other passive and active infrastructure used by telecommunications providers to provide mobile telecommunications services.
Densification	Refers to increasing network capacity by adding cell sites, for example, increasing the number of base stations.
Internet of Things	The Internet of things (IoT) describes physical objects (or groups of such objects) with sensors, processing ability, software and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks.
Neutral Host	A network infrastructure owned and maintained by a third party that rents or leases its infrastructure to any network operators looking to scale up their network capacities.
Passive Infrastructure	Assets and equipment which are not part of the active layer of a telecommunications network (the signal path), including but not limited to sites, buildings, shelters, towers, masts, poles, ducts, trenches, electric power supply/generators and air conditioning.
Peri-Urban	The area around an urban area that is the interface of an urban area with more rural and bushland areas.

	Generally, we use the definition in the Peri-Urban Mobile Program (PUMP) program,[230] which defines 'peri-urban' as being areas along the edges of Australia's major cities.[231]
Tenant	Mobile network operators or other access seekers that are located on a tower are referred to as tenants.
Tower	A structure on which a radio base station equipment can be installed. It includes telecommunications towers that are part of the National Broadband Network, radio and television broadcasting towers and other suitable towers or similar structures that could be used to improve mobile telecommunications coverage or can be used in the supply of mobile telecommunications and other radiocommunications services, including rooftops or utility masts.

Definitions of regional, rural, remote and peri-urban

The Inquiry is focused on regional, rural, remote and peri-urban areas of Australia. For the purposes of this report on preliminary findings, we use the Australian Bureau of Statistic's Australian Statistical Geography Standard Volume 5 – Remoteness Structure.[232] We use the Australian Bureau of Statistic's Remoteness Structure as a proxy for regional, rural, remote and peri-urban Australia in the following way:

Table 1: Use of Australian Bureau of Statistic's Remoteness Structure

Region	Australian Bureau of Statistic's Remoteness Structure classification(s)
Remote	Remote and Very Remote Australia
Rural	Outer Regional Australia
Regional	Inner Regional Australia
Peri-urban	No direct classification relevant
Urban	Major Cities of Australia

Peri-urban areas have a mix of urban, regional and rural characteristics. They will often have a higher population density compared to urban areas, and can have a mix of agricultural land, commercial and industrial developments, as well as residential use. Generally, there will be more bushland in peri-urban areas than urban areas, meaning that they have a higher risk of bushfires and other natural disasters.

230 Department of Infrastructure, Transport, Regional Development, Communications and the Arts, *Peri-Urban Mobile Program*, accessed 17 April 2023.

231 See for example, Department of Infrastructure, Transport, Regional Development, Communications and the Arts, *Peri-Urban Mobile Program Grant Opportunity – GO5331*, February 2022, accessed 17 April 2023.

232 ABS 2018, *1270.0.55.005 - Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure*, July 2016, accessed 17 April 2023.

Attachment B: Direction to the ACCC under section 496 of the *Telecommunications Act 1997* to conduct the Inquiry

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PARLIAMENT OF AUSTRALIA • HOUSE OF REPRESENTATIVES

PAUL FLETCHER MP

Federal Member for Bradfield
Minister for Communications,
Urban Infrastructure,
Cities & the Arts

MS22-000681

Ms Gina Cass-Gottlieb
Chair
Australian Competition and Consumer Commission
GPO Box 3131
Canberra ACT 2601

By email: gina.cass-gottlieb@accc.gov.au

Dear Ms Cass-Gottlieb Gina

I would like to congratulate you on your appointment as chair of the Australian Competition and Consumer Commission (ACCC). The ACCC is a key agency in Australian economic and consumer regulation and I appreciate the significant role you have accepted. The ACCC interacts with my portfolio in a range of important areas and I look forward to working with you productively into the future.

The Australian Government has been finalising its response to the 2021 Regional Telecommunications Review. As discussed between officers of the ACCC, the Treasury and my Department, there are a number of matters on which the Government would appreciate the ACCC's assistance.

In this context I am now writing to formally direct the ACCC under section 496 of the *Telecommunications Act 1997* to conduct a public inquiry into access to towers and associated infrastructure in regional, rural, remote and peri-urban Australia; and the feasibility of temporary mobile roaming during natural disasters and emergencies. The formal direction and its explanatory statement are attached.

The inquiry is not an inquiry into domestic mobile roaming generally, for example, of the kind previously conducted by the ACCC in 1998, 2005 and 2016. Similarly, the inquiry is not intended to be a regulatory inquiry, such as the ACCC might conduct under the facilities access in Part 5 of Schedule 1 of the *Telecommunications Act 1997* or an access inquiry under Part XIC of the *Competition and Consumer Act 2010*, nor is it intended to be a review of these regulatory mechanisms. Rather, the inquiry is intended to focus on the real world operating environment for tower access and associated facilities with a view to supporting future Government policy decisions on regional mobile telecommunications provision, including future initiatives to improve mobile coverage, capacity or competition.

While the ACCC should report on its findings, the Government is not seeking recommendations from the Commission.

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I ask that the inquiry start by no later than 1 July 2022 and be completed as soon as possible and no later than 30 June 2023.

It is preferable that the ACCC consult on a draft report before finalising the report and I would ask that the Government receive advance notice of the ACCC's final report, as well as an advance copy of the report.

The ACCC should keep my Department informed of its progress, noting the inquiry will be relevant to the implementation of a range of other measures that form part of the Government's response to the 2021 Regional Telecommunications Review. My Department can provide the ACCC with further information on the background, context and purpose of the inquiry.

The Government will contact the ACCC about a number of further measures involving the ACCC arising from the Government response to the Review shortly.

I would also like to take this opportunity to thank the ACCC for making Mr Michael Cosgrave available to the Review prior to his retirement. He has made a valuable contribution to the Review that is greatly appreciated.

I have copied this letter to the Deputy Prime Minister, the Treasurer, the Minister for Regionalisation, Regional Communication and Regional Education, and the Minister for Agriculture, Drought and Emergency Services.

Yours sincerely

Paul Fletcher

25/3/2022

Enc.

Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022

I, Paul Fletcher, Minister for Communications, Urban Infrastructure, Cities and the Arts, make the following direction.

Dated 25 March 2022

Paul Fletcher
Minister for Communications, Urban Infrastructure, Cities and the Arts

Contents

1 Name

This instrument is the *Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022*.

2 Commencement

(1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

Commencement information

Column 1	Column 2	Column 3
Provisions	**Commencement**	**Date/Details**
1. The whole of this instrument.	The day after this instrument is registered.	

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

(2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

3 Authority

This instrument is made under subsection 496(1) of the *Telecommunications Act 1997*.

4 Definitions

(1) In this instrument:

ACCC means the Australian Competition and Consumer Commission.

Act means the *Telecommunications Act 1997*.

towers includes NBN towers, radio and television broadcasting towers and other suitable towers or similar structures that could be used to improve mobile coverage.

(2) For the purposes of this instrument, reference to 'likely users' in subsections 5(2) and (3) includes telecommunications carriers, telecommunications service providers, utilities, emergency service organisations, and other operators of radiocommunications equipment.

5 Direction

(1) I direct the ACCC to hold a public inquiry under Division 3 of Part 25 of the Act, commencing no later than 1 July 2022, in relation to:

(a) access to towers and associated passive and active infrastructure provided by telecommunications and other infrastructure providers in regional, rural, remote and peri-urban areas within Australia, that can be used in the supply of mobile telecommunications and other radiocommunications services; and

(b) the feasibility of temporary mobile roaming services to be provided during natural disasters and other such emergencies.

Note 1: For the purposes of paragraph (a), reference to 'telecommunications and other infrastructure providers' includes specialist tower operators, neutral host operators, telecommunications carriers, owners of other suitable infrastructure, utilities, and emergency service organisations.

Note 2: Under section 505 of the Act, the ACCC must prepare a report setting out its findings as a result of the inquiry and give a copy to the Minister. The ACCC is expected to provide a copy of this report to the Minister as soon as is reasonably practicable, or otherwise within 12 months from the commencement of this inquiry.

(2) The ACCC must have regard to all of the following matters (without limitation) in connection with the conduct of the inquiry:

(a) the costs of providing towers and associated passive and active infrastructure that can be used by third party telecommunications providers and others to supply mobile telecommunications and other radiocommunications services;

(b) the costs of accessing land to provide the towers and associated infrastructure referred to in paragraph (a);

(c) the existing commercial and other fee arrangements under which third party telecommunications providers and other likely users can access the towers and associated infrastructure referred to in paragraph (a), including the considerations that contribute to establishing such fee arrangements (such as the costs of providing such access, as distinguished from the costs of providing the towers and associated infrastructure);

(d) the effectiveness of current commercial and regulatory arrangements in enabling third party telecommunications providers and other likely users to access the towers and associated infrastructure referred to in paragraph (a);

(e) the kinds of matters (including the impact of costs) providers of the towers and associated infrastructure referred to in paragraph (a) consider in deciding to:

(i) provide the towers and associated infrastructure referred to in paragraph (a); and

(ii) provide access to such towers and infrastructure.

(f) how the kinds of matters described in paragraph (e) may affect the provision of greater mobile coverage;

(g) the implications (if any) for the provision of access to towers and associated infrastructure referred to paragraph (a) of mobile carriers divesting their tower and associated infrastructure businesses, including (without limitation):

(i) the scope of access offered;
(ii) the terms and conditions of access;
(iii) the commercial and other fee arrangements for access; and
(iv) the kinds of considerations that contribute to establishing these commercial and other fee arrangements for access;

(h) the feasibility of providing temporary mobile roaming services during natural disasters and other such emergencies, including (without limitation):
(i) the technical feasibility of providing such services;
(ii) the support systems and business processes required; and
(iii) the associated time and costs expected in providing such services.

(3) The ACCC must consult with the following persons, bodies, and agencies (as applicable, but without limitation) in respect of the matters described in subsection (2):
(a) providers of the towers and associated infrastructure referred to in paragraph (2)(a);
(b) providers of other infrastructure that could similarly be used in supplying mobile telecommunications and other radiocommunications services;
(c) likely users of the towers and associated infrastructure referred to in paragraph (2)(a); and
(d) members of the community that may be interested in improvements in mobile coverage and / or temporary mobile roaming services to be provided during natural disasters and other such emergencies.

Explanatory Statement

Issued by the Authority of the Minister for Communications, Urban Infrastructure, Cities and the Arts.

Telecommunications Act 1997

Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022

Authority

This instrument is made under subsection 496(1) of the *Telecommunications Act 1997* (the Act).

Purpose

The purpose of the *Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022* (the Direction) is to direct the Australian Competition and Consumer Commission (ACCC) to undertake a public inquiry into the matters specified in the Direction.

Background

The Australian Government has had a longstanding interest in improving mobile coverage and the competitive supply of mobile services in regional, rural, remote and peri-urban Australia. In this context, it has been considering whether access to mobile towers and associated infrastructure is supportive of such improvements, noting the Government has been investing in expanding mobile coverage through programs like the Mobile Black Spot Program and may make further such investments.

On 13 December 2022 the Regional Telecommunications Independent Review Committee (RTIRC) submitted its report on the 2021 Regional Telecommunications Review to the Government.[1] The RTIRC made a number of findings about mobile networks and services in regional, rural, remote and peri-urban Australia. It highlighted the continuing importance of mobile services, including in natural disasters. The report considered ways of improving coverage and competition, such as shared network access as well as access to necessary inputs. It recommended that the Government continue to support provision of new mobile coverage, with investments that address coverage, capacity and competition issues and consider funding vehicles which leverage private sector co-investment (recommendation 2).

The RTIRC also recommended that the Government undertake a feasibility study to consider the capability for mobile roaming to be deployed in emergency circumstances (recommendation 9). This could assist members of the public to contact emergency or rescue organisations, or each other, during natural disasters if they are in an area where their own mobile provider does not have coverage. While mobile phones in Australia can access emergency numbers (e.g. 000) via other providers' networks, where other numbers are concerned a mobile phone operating on one carrier's network cannot access another

[1] Available at www.infrastructure.gov.au/department/media/publications/2021-regional-telecommunications-review-step-change-demand.

carrier's network without technical adjustments being made by mobile carriers and agreements being in place between carriers.

This direction responds to these mobile service issues already of interest to the Government and also raised by the RTIRC.

The inquiry is not linked to any specific ACCC regulatory processes under Part XIC of the *Competition and Consumer Act 2010*, or under Part 5 of Schedule 1 to the Act. It is not a direction to commence a new inquiry into domestic mobile roaming. It is instead intended to generate information that can clarify technical and market issues and contribute to possible policy and program development to improve regional mobile coverage and competition.

It is envisaged that the ACCC will commence the inquiry by 1 July 2022 and complete it within 12 months. The ACCC is not expected to make recommendations, but instead to provide evidence-based findings that facilitate policy development. The ACCC will consult widely, including infrastructure providers and likely users.

Consultation

The RTIRC consulted widely in developing its recommendations, receiving over 650 submissions. Improvements in mobile coverage, capacity and competition are strong themes in the report of the Committee, as are access to inputs to supply services and network sharing models. The Department of Infrastructure, Transport, Regional Development and Communications consulted the ACCC on the draft Direction.

The Office of Best Practice Regulation (OBPR) considers that the inquiry does not result in additional regulatory burden under the Australian Government Regulatory Impact Analysis Framework as the inquiry is exercised through the ACCC's existing functions (OBPR reference OBPR22-01657).

The provisions of the direction are direction are explained in Attachment A.

Statement of compatibility with human rights

A statement of compatibility with human rights for the purposes of Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011* is set out at Attachment B.

Attachment A

Details of the *Telecommunications (ACCC Inquiry into Access to Towers and Associated Infrastructure) Direction 2022*

Section 1 – Name

This section provides that the name of the instrument is the *Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022* (the Direction).

Section 2 – Commencement

Section 2 provides that the Direction commences the day after it is registered on the Federal Register of Legislation.

Section 3 – Authority

This section provides that the Direction is made under subsection 496(1) of the *Telecommunications Act 1997* (the Act).

Section 4 – Definitions

Section 4 provides a limited number of definitions relevant to the direction. In general, terms within the instrument are not defined and therefore would have their everyday meaning.

Subsection 4(1) provides definitions of relevant terms in the Direction, including 'ACCC' and 'Act'. A definition is also provided for 'towers' to make clear that this term includes NBN towers (i.e., towers that are part of the National Broadband Network), radio and television broadcasting towers or similar structures that could be used to improve mobile coverage.

Subsection 4(2) provides that, for the purposes of the Direction, reference to 'likely users' in subsections 5(2) and (3) includes telecommunications carriers, telecommunications service providers, utilities, emergency service organisations and other operators of radiocommunications equipment. The intention is to require the ACCC to consider a broad range of possible users of towers, permitting it to develop a more complete picture of tower access and use.

Section 5 – Direction

This section provides the specific directions to the ACCC. Subsection 5(1) sets out the two main issues for the inquiry:

> (a) access to towers and associated passive and active infrastructure provided by telecommunications and other infrastructure providers in regional, rural, remote and peri-urban areas within Australia, that can be used in the supply of mobile telecommunications and other radiocommunications services; and
> (b) the feasibility of temporary mobile roaming services to be provided during natural disasters and other such emergencies.

Apart from towers, passive infrastructure would include facilities such as sheds, ducts or pits. Active infrastructure could include both telecommunications infrastructure such as backhaul, cabling or radiocommunications devices, and plant and power infrastructure such as cooling, batteries, generators or power lines.

Regional area, rural area, remote area, peri-urban area, mobile telecommunications services and wireless services would have their everyday meanings. For the assistance of the reader, a 'peri-urban area' should be understood as the area around an urban area that is the interface of an urban area with more rural and bushland areas.

Natural disasters includes significant disasters, such as floods, cyclones or major bushfires, during which telecommunications infrastructure may experience significant damage and disruption, such that people in the areas affected by the disaster may have difficulty contacting emergency or rescue organisations, or other people, using their usual communications channels, raising the potential benefit of alternative communications means. Other such emergencies would be more short-lived emergencies, but where there may be also be damage or disruption to telecommunications networks and a similar benefit in having access to alternative mobile networks.

Two notes are provided for the benefit of the reader. Note 1 specifies that 'telecommunications and other infrastructure providers' includes specialist tower operators, neutral host operators, telecommunications carriers, owners of other suitable infrastructure, utilities, and emergency service organisations. This makes clear that the ACCC should consider a broad range of infrastructure providers.

Note 2 advises that, under section 505 of the Act, the ACCC must prepare a report setting out its findings as a result of the inquiry and give a copy to the Minister. It also advises that the ACCC is expected to provide a copy of the report as soon as is reasonably practicable, or otherwise within 12 months from the commencement of the inquiry.

Subsection 5(2) specifies matters to which the ACCC must have regard. The ACCC is not limited to considering only these matters. Together, the matters go to the Government better understanding how costs affect tower access fees and broader decisions to invest in towers and associated infrastructure that could improve mobile coverage, as well as the feasibility of providing mobile roaming during natural disasters and emergencies.

Paragraphs 5(2)(a)-(c) of the matters require the ACCC to have regard to the costs that underlie the provision of towers and associated infrastructure, including land access charges, and the fee arrangements that relate to obtaining access to those towers and that infrastructure. Together, these paragraphs provide that the ACCC will generate evidence-based information on the costs that are incurred in providing towers and associated infrastructure, and how these costs flow through to existing fee arrangements for accessing towers. Paragraph 5(2)(c) also makes clear that the ACCC must consider the costs of providing access (for example, relevant business practices and systems) as well as the costs of providing towers and associated infrastructure themselves.

It is expected that with this information the ACCC could then consider the relationship between the costs involved in supply and current fee arrangements.

Paragraph 5(2)(d) requires the ACCC to consider the effectiveness of current commercial and regulatory arrangements in enabling access to towers and associated infrastructure. This will require it to assess whether the existing settings are effective, however, the ACCC is not required or expected to undertake a formal technical review of the facilities access regime in Part 5 of Schedule 1 of the Act or the access regime in Part XIC of the *Competition and Consumer Act 2010*, nor implement any reviews under those provisions as a result of this direction. The focus of the inquiry is on the real world operating environment for access to towers and associated infrastructure and whether that can better support improvements in mobile coverage, capability and competition in regional, rural, remote and peri-urban Australia.

Paragraph 5(2)(e) directs the ACCC to examine the kinds of matters (including the impact of costs) infrastructure and tower providers consider in deciding to provide towers and associated infrastructure and provide access to that infrastructure. Paragraph 5(2)(f) requires the ACCC to consider how the kinds of matters described in paragraph (e) may affect the provision of greater mobile coverage. Together, the paragraphs will require the ACCC to consider how costs impact on investment decisions that underlie improvements in mobile coverage.

Paragraph 5(2)(g) requires the ACCC to have regard to the implications (if any) for the provision of access to towers and associated infrastructure of mobile carriers divesting their tower and associated infrastructure businesses. This notes that mobile carriers like Telstra, Optus and TPG have divested, or are divesting, themselves of their tower businesses and this may impact the dynamics of providing access to towers and associated infrastructure. The paragraph also identifies areas where the ACCC must consider such implications, namely the scope of access that may be offered, the terms and conditions of access, the fee arrangements and the kinds of considerations that contribute to establishing fee arrangements. Paragraph 5(2)(g) will ensure that the ACCC considers whether current actions by mobile carriers to divest their tower businesses will affect the nature of access and the terms of access.

Paragraph 5(2)(h) provides that matters the ACCC must consider in determining the feasibility of providing temporary mobile roaming services during natural disasters and emergencies include the technical feasibility of providing such services, the support systems and business processes required, and the associated time and costs expected in providing such services.

Subsection 5(3) provides that the ACCC must consult persons, bodies and agencies as applicable, and again without limitation in respect of the matters described in subsection (2). While the ACCC's inquiry will be public, four examples are provided to ensure the views of the relevant parties are sought. These are providers of towers and associated infrastructure, providers of other infrastructure that could similarly be used in supplying mobile telecommunications and other radiocommunications services, likely users of towers and associated infrastructure, and members of the community that may be interested in improvements in mobile coverage and/or temporary mobile roaming services to be provided during natural disasters and other such emergencies.

As the inquiry will be a public inquiry conducted in accordance with Division 3 of Part 25 of the Act, the ACCC must publish the fact that it is holding the inquiry and invite submissions. The ACCC may issue a discussion paper and may also hold public hearings. The ACCC must prepare a report setting out its findings of the result of the inquiry.

Attachment B

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022

Overview

The purpose of the *Telecommunications (ACCC Inquiry into Access to Regional Towers and Associated Infrastructure) Direction 2022* (the Direction) is to direct the Australian Competition and Consumer Commission (ACCC) to undertake a public inquiry into the matters specified in the Direction.

Subsection 5(1) of the Direction specifies two main tasks of the inquiry:

> (a) access to towers and associated passive and active infrastructure provided by telecommunications and other infrastructure providers in regional, rural, remote and peri-urban areas within Australia, that can be used in the supply of mobile telecommunications and other radiocommunications services; and
> (b) the feasibility of temporary mobile roaming services to be provided during natural disasters and other such emergencies.

The Australian Government has had a longstanding interest in improving mobile coverage and the competitive supply of mobile services in regional, rural, remote and peri-urban Australia. The 2021 Regional Telecommunications Independent Review Committee has also made recommendations relating to industry and Government investment to improve mobile coverage, access to inputs for the supply of such services, new neutral host models and the feasibility of providing temporary mobile roaming services during natural disasters or emergencies. The direction and inquiry respond to these considerations.

The ACCC will conduct a public inquiry in response to the direction, and call for submissions. It must publish a report on its findings. The inquiry is expected to commence by 1 July 2022 and be completed within 12 months.

Human rights implications

The Direction is compatible with the rights and freedoms recognised or declared by the international instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* as they apply to Australia. The Direction does not engage any of the applicable rights or freedoms. Access to telecommunications services is, however, increasingly seen as important to broader social, economic, political and cultural participation.

Conclusion

The Direction is compatible with human rights as it does not raise any human rights issues.