



Regional Mobile Infrastructure Inquiry

Industry consultation exchange - synopsis of discussions

Introduction

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.

As part of the Inquiry, the ACCC held three stakeholder forums (referred to as 'consultation exchanges') with three groups of stakeholders. The stakeholder groups were industry, consumer, and emergency services related stakeholders.

This document provides a summary of the issues discussed and raised during the industry consultation exchange. This exchange was held in person on Thursday 16 March 2023. Industry stakeholders who provided submissions to the Inquiry's initial consultation paper were invited to take part.

Representatives from eleven industry stakeholders and the Australian Communications and Media Authority responded and took part. ACCC Commissioner Anna Brakey chaired the consultation exchange.

In this summary individual participants and their organisations are de-identified.

Access to towers

Most stakeholders noted that they had not experienced any issues accessing towers in the new industry structure. Some stakeholders noted that it was too early to tell if there were going to be issues accessing new towers.

One stakeholder noted that when attempting to access towers in remote areas, they considered the price for access were excessively high. The stakeholder added that the costs to access towers are higher than to access rooftops.

There was agreement among some stakeholders that they hope that competition between mobile network infrastructure providers would lead to decreased access costs. However, other stakeholders tempered this by noting that it was too early to tell how costs of access would play out with the new industry structure. Another stakeholder noted that for brownfields sites, they had not seen any increased competition and there was only competition for existing sites if there was another suitable site nearby. Often having another nearby site is not the case.

Some participants discussed increased demand for tower access from other stakeholders, such as farmers. A farmer would want to pay a small amount for access to a tower site, which is unviable to operate the tower solely on that income.

One stakeholder noted that while access to towers is regulated, they consider this does not translate into practice. The stakeholder outlined their view that this is because mobile network infrastructure providers could set access fees at uneconomic rates for second or third mobile network operators, eliminating competition.

Costs of providing new towers

Some participants acknowledged the key issue in regional telecommunications is the lack of economic incentive to invest in further coverage. There was general agreement by attendees that it is at least as expensive to install new passive or active infrastructure in regional and remote areas as it is to do so in metro areas. Moreover, the lower population density in these areas means that there are fewer potential customers, and thus much lower potential return on investment.

There was discussion about how the cost of a tower structure itself doesn't change by region, but there were costs that change such as mobilisation of labour. Mobile network operators commented on how transmission is a large cost in providing towers and is an ongoing cost.

A stakeholder noted that the cost of active equipment was around 10 per cent of the total cost of a tower, and thereby is a smaller cost in providing new coverage. The stakeholder noted that the remaining 90 per cent related to passive infrastructure build costs.

A stakeholder also raised that there are ongoing costs and towers will need to be replaced at some point in time at a higher cost due to inflation. The stakeholder posited that this means there is no 'sunk cost' for towers given the need to factor in replacement costs over time.

Costs of providing or enabling co-locations

One stakeholder considered that co-location is more expensive in regional and remote Australia.

Another attendee noted that sometimes upgrading a tower and power could cost up to \$300,000, which may prohibit co-location.

One stakeholder noted that there are trade-offs in building towers, a tower could be cheaper but it may not last as long as a more expensive build. There are trade-offs in incorporating capacity for co-location.

'Our hope is that competition between [mobile network infrastructure providers] will decrease prices.'

'For brownfields towers, no increased competition is being seen.'

Impact of tower divestment

Most stakeholders agreed the divestment of tower assets to mobile network infrastructure providers was a positive move. One stakeholder stated this was because investment decisions were being made more holistically, rather than based on a mobile network operator's access to capital. Other attendees raised that divestment gives better visibility and understanding of how costs are allocated and how capital is allocated.

There was discussion about how the valuation of the tower asset sales was done on a forward revenue forecast, with existing occupants/tenants on towers forming a large part of the valuation. One stakeholder noted that mobile network infrastructure providers are set up

to focus on growing business, and not to run the tower infrastructure in a passive 'set and forget' sense.

One stakeholder noted that mobile network infrastructure providers appear to have a more 'disaggregated' focus on their portfolio, which makes it more obvious that remote areas are uneconomic to invest in. On the other hand, the stakeholder noted that there is now greater competition with tower infrastructure and a greater understanding on how to invest.

One stakeholder noted that the pricing impact of the tower divestments has been relatively neutral. A stakeholder expressed the hope that a consequence of divestment is that the costs to build towers are decreasing, and this would flow down to mobile network operators. Another attendee noted their view that divestment is likely to lead to more flexibility in the industry, and the greater appetite for co-location means that the visibility of tower assets will lead to price reductions over time.

A stakeholder observed that there were increasing deals being made to encourage co-location, which was likely a consequence of having three players in the mobile network infrastructure provider market.

A stakeholder noted that the cost of tower provision was increasing. There was a huge benefit to transferring towers to mobile network infrastructure provider's due to the increased incentive for these entities to increase co-locations.

'[Divestment] has made it more obvious that remote areas are uneconomic to invest in.'

Comments on government funding programs

Stakeholders all recognised the inherent difficulties in designing government funding programs.

One stakeholder highlighted that there is a broad array of tower locations, and a broad array of how those towers were funded. Several stakeholders commented that towers which were previously built with government funding should be more accessible. Some stakeholders discussed how the government had subsidised tower builds and these were now sold off to mobile network operators at presumably full price, meaning that the original mobile network operators were getting continued benefits from the government subsidisation. One stakeholder noted that there should be a focus on increasing competition and regulation to access infrastructure that has been provided through government subsidy.

There was discussion around how competing second or third mobile network operators looking to co-locate on government subsidised towers do not receive the benefits of the subsidy, since the subsidy is provided to the first mobile network operator and builder of the tower. There was also discussion around how second or third mobile network operators are interested in providing competition and expanding their coverage, however they are unable to access new areas at the same cost of the initial mobile network operator receiving government subsidies. One stakeholder noted that there is no mechanism to recognise the value of government subsidies for co-locators.

Tensions between new coverage and increasing co-locations on existing towers

Some stakeholders emphasised what they see as a conflict between competition and coverage in mobile funding schemes. In their view, funding to improve coverage would almost invariably be awarded to the network with the greatest existing coverage. This thus risked decreasing competition and entrenching this network's competitive advantage.

Stakeholders discussed that there were two key types of coverage, and this impacts how government policy is designed:

- 1) improving coverage where there is no coverage, and
- 2) increasing competition for existing infrastructure, which means have a second or third mobile network operator locating on infrastructure that already has at least one mobile network operator.

Both types of coverage have different incentives and economics, and there is an inherent tension between funding to expand coverage and to increase competition. Both also have impacts for competition and the retail layer (in terms of equalising or further differentiating coverage between mobile network operators), and at the infrastructure layer.

There was agreement among attendees that remote areas are uneconomic to invest in without government support. For new greenfield sites, these need new investment and capital, which means that the economics of investment start breaking down the more remote the location. A stakeholder noted that the cost of building towers in regional and remote Australia is not profitable because of diminishing market value. Another stakeholder also noted that subsidies have not historically fully covered costs and so there is still a business case that factors in to new or deeper coverage.

There was discussion about the government's new Improving Mobile Coverage Round of the Mobile Black Spot Program and how this provided an opportunity to do something different. A stakeholder noted that new investments by government should consider how to enable tower models that can accommodate competitive providers offering innovative solutions, not just multiple mobile network operators but increasing demand from others exploring Internet of Things technologies (such as farmers).

Stakeholders discussed the difficulties for smaller or new entrants to compete for government funding. To make funding viable for such groups, one stakeholder noted that ongoing government funding was required to support the ongoing costs of running a tower. Part of the difficulty for new entrants to build towers is that a mobile network operator is required to underwrite towers, as no development application or government subsidy would be approved without a mobile network operator committing to locating on the new tower.

There was continued discussion on how government subsidies traditionally have been for capital infrastructure. One stakeholder advocated for a change to funding so that operating costs could also be subsidised by government.

Mobile network infrastructure providers can struggle to bid for government funding

Concerns were also raised that mobile network infrastructure providers can struggle to take advantage of government funding.

Some stakeholders commented that the best use of public funds is shared infrastructure. The New South Wales government's active sharing pilot was discussed as an innovative way to increase co-locations. Some attendees noted that they had submitted bids for government funding programs but had been unsuccessful for several reasons:

- The structure was not set up for new infrastructure entrants. Funding programs were originally designed for mobile network operators and have now been tweaked for mobile network infrastructure providers, however there are still constraints in that a mobile network operator needs to commit to being on the tower. Funding programs have required a binding commercial commitment from a mobile network operator. If a mobile network infrastructure provider were to put forward a bid for a government funding program, they need to ask mobile network operators if they could provide a solution to a

mobile network operator's coverage gap. However, the mobile network operators are also competing for the funds and don't have the incentive to share this information.

- There is an issue around prioritisation and information asymmetry. That is, the mobile network operators have full knowledge of their priorities and where they see value in expanding mobile coverage, and these priorities are very different between the three mobile network operators. There is no transparency around those priorities to other parties such as independent mobile network infrastructure providers, or to government. There is some publicly report information about mobile black spots, but this is inconsistent and not regularly updated.

Consequently, some attendees noted that they find that the scope of government funding programs are narrow and that mobile network operators 'hold all the keys'. One stakeholder noted that while the NSW government's active sharing pilot was an innovative approach, it is still up to the mobile network operators to decide if a tower build progresses. Another stakeholder commented that the community expectation is for infrastructure sharing to avoid duplication.

Another concern raised was the use of coverage maps in assessing applications for funding. One stakeholder viewed these as a flawed option, with a focus on consumer outcomes presented as the superior metric.

'Towers were funded [under the Mobile Black Spots Program] to make them viable for the first entrant, but no value goes to the second co-locator.'

'Government policy focuses on improving coverage where there is no coverage, in contrast to regulation which covers competition for existing infrastructure.'

Providing greater mobile coverage, neutral host models

Stakeholders discussed the reality that the three mobile network operators have vastly different coverage across Australia. One stakeholder noted that Australia is unique in that downstream retail competition is based on coverage.

There was discussion around 'islands of coverage', where a new site for one or two mobile network operators may not make sense to another mobile network operator because it is too far away from its existing coverage.

One stakeholder commented that the active neutral host model (radio access network sharing) is seen by mobile network operators as a way of losing control of the market. However, the stakeholder added that attitudes now appear to be changing. Some stakeholders noted that neutral host models could assist in driving competition in rural Australia.

Another stakeholder agreed that neutral host models are viable, but only where all three mobile network operators have similar coverage. The stakeholder noted their view that the bottleneck for greater coverage was not technology, but commercial strategy. The neutral host model could help in metro areas where all mobile network operators will face capacity issues and will need to densify their coverage.

In rural Australia, stakeholders agreed that the issue was a commercial one. One stakeholder commented that it did not make sense to share costs equally between mobile network operators due to varying market shares in rural areas.

Some stakeholders also raised the universal service obligation as a barrier to expanding mobile coverage, since funds are directed towards fulfilling this obligation. Some stakeholders stated that reform of the universal service obligation was required. Another stakeholder noted that it would not be financially feasible for the government to fund a universal service obligation for mobiles.

A stakeholder commented how the larger market share by one mobile network operator means that operator does not lead investment, that operator's investment is in response to investment from others. Another stakeholder noted that market share is not the only factor in investment decisions, but also share of profits. If looking at share of profits, it is very difficult for other mobile network operators to invest in these areas.

Access to land

Stakeholders highlighted that processes for land access are variable by state and territory, and there are three layers of government that need to be considered. The cost of accessing land is also variable. One attendee noted that some landowners require co-user fees, which require additional payments to the landowner if another tenant wishes to locate on a tower.

Numerous stakeholders outlined potential improvements that could be made in terms of land access and tenure. Stakeholders agreed that access to public land can be extremely difficult. Stakeholders also agreed that land access varies significantly between states and territories.

One stakeholder noted that telecommunications is a federal matter under the Constitution and were surprised that more hasn't been done to address land access issues.

Stakeholders discussed the NSW Infrastructure State Environment Planning Policy (SEPP) allows for towers up to 50m to be built in rural areas as a complying deployment. There are conditions that must be met to qualify for the relevant planning exemption, but it can save time on planning processes and result in a more timely and cost-effective way to access land. Many stakeholders agreed this NSW position should be followed in other jurisdictions.

Stakeholders shared numerous examples of issues they experienced with access to land:

- There was an example from Western Australia where the land access arrangements had been taken to court several times.
- There were examples of where councils take many years to review land access agreements.
- Some councils require ex gratia payments, and sometimes this is done to delay or stop the approval process.
- There was an example of one council requiring \$35,000 to apply for a development application.
- Sometimes one councillor can hold up a whole process.

One attendee noted that it can be difficult to determine who owns land, particularly in remote areas.

Overall, barriers to accessing public land were regarded as an impediment to network expansion. Some stakeholders noted that land access was easier in the cities than in remote areas because more private landowners were more open to negotiation.

Stakeholders discussed the increasing presence of land aggregators. One stakeholder commented that land lease aggregators tend to be foreign owned and have opportunistic business models, in that they buy up leases and become the new landlord for tower sites, then demand higher rents from mobile network infrastructure providers.

Some attendees noted that they weren't yet clear on the impacts of the land aggregators, which tend to increase the rent on lands when leases come up for renewal. One stakeholder's view was that the mobile network operators' portfolios would be impacted more than mobile network infrastructure providers.

Stakeholders agreed that this may be an area where future regulation or government intervention may be needed as mobile network infrastructure providers may need to relocate tower sites if increases in land leases are not proactively managed. Stakeholders commented that the impact of land lease aggregators was most challenging on older sites, with new sites now being well managed by either purchasing land or otherwise safeguarding against the risk of lease increases.

One stakeholder noted that the level of land lease aggregators was around 5 per cent of the land for mobile towers and further increases in ownership may lead to land aggregators seeking higher rents.

'Time limits should be set on the red tape of council processes.' 'Lease aggregators are foreign-owned and have opportunistic business models. The ability for a tower owner to execute a relocation is near-impossible.'

Impact of low earth orbit satellites

Stakeholders noted that the size of Australia means that terrestrial coverage of the entire continent is unlikely to be viable at any point in the future. As such, stakeholders acknowledged that satellite could have a role to play in allowing for mobile network access in regions where the population density is insufficient to justify terrestrial network coverage.

One stakeholder noted that satellite connectivity direct to handset is a recent market development and is becoming available at least for messaging. The stakeholder noted that voice connectivity would be harder, however over time data will be viable over satellite. The stakeholder expected this in a 5-year timeframe.

Another stakeholder disagreed with this timeframe, noting that voice may appear in 5 years but expected it would be spotty. Data will be very limited for years. This means satellite direct-to-handset would be a complement to terrestrial mobile networks.

Another stakeholder raised concerns about exclusivity of commercial arrangements between some mobile network operators and low-Earth orbit satellite operators. This was noted as having a potential impact on downstream competition later, although it was too early to know at this time.

In general, satellite was viewed as a nascent space, with substantial scope for change. On the one hand, this could take the form of new innovations, such as satellite linking in directly to cars or to more available handsets.

A stakeholder noted that the barriers to building towers in regional and remote Australia may diminish with increased use of satellites for backhaul, given transmission costs can be significant in these areas.

There was discussion on the different spectrum models for low-Earth orbit satellite operators. The options include using the spectrum of the mobile network operators that the satellite operators work with, or the satellite operator buying their own spectrum.

'Satellites won't catch up [to terrestrial networks] within 5 years. They will only be a complement in a niche role.'

'[Low earth satellites] are a natural monopoly area.'

Commercial arrangements including co-location

Co-location was significantly discussed throughout the exchange. A number of factors were raised that could impact on the viability of co-location.

Divestment was noted by some stakeholders as having increased the incentives on mobile network infrastructure providers to encourage co-location. This has led, in the view of some stakeholders, to a reduction in obstructionist behaviours (such as dummy antennas and reserving space on towers) and an increase in co-location. There was agreement it is generally easier to co-locate on towers after divestment. However, one stakeholder noted that the cost of co-locating on existing infrastructure was not decreasing despite the divestment.

Some stakeholders emphasised the challenges associated with co-location. First of these was that co-location is commercially challenging in areas where only one carrier has coverage. This is due to high transmission costs and limited commercial incentives to expand substantially outside of existing coverage zones.

The passive infrastructure requirements for co-location were also described as presenting trade-offs. If adequate passive infrastructure is not invested in when a tower is initially built, then any potential second tenant will often need to pay a substantial capital cost to strengthen the tower for co-location. Some stakeholders considered that towers built through government co-funding should always be built with sufficient additional capacity for co-location to avoid this issue. However, one attendee noted the potential inefficiency involved in building additional infrastructure that may never be required. One stakeholder noted that a potential commercial model could be a usage-based model.

'There is a hunger now to get people on the tower.' 'The commercial model [for co-location] has to be a usage-based model.'

Effectiveness of current access frameworks

One attendee raised concerns about the effectiveness of the carrier facilities access regime in Schedule 1 of the *Telecommunications Act 1997*. The stakeholder noted that there was a question around the ACCC's jurisdiction. While Schedule 1 may provide a safety net, the stakeholder noted that it was open to delay and there was a case to review the regime. The stakeholder suggested implement a similar regime to Part XIC of the *Competition and Consumer Act 2010* into Schedule 1 of the *Telecommunications Act 1997*.

Another attendee raised concerns with Part 34B of the *Telecommunications Act 1997*. The stakeholder noted that some entities were caught by this regulation but viewed this as unintentional as it did not apply evenly across entities with similar operations.

One stakeholder raised a concern about tower sites where ownership has changed. With towers that were previously owned by a carrier, the tower access was subject to the facilities access regime in the *Telecommunications Act 1997*. However, with a change in ownership and no carrier licence in some mobile network infrastructure provider entity groups, there is no safety net of a negotiate-arbitrate regime for future negotiations regarding these existing tower locations.

'Do we keep our carrier license if it adds additional regulation? Do other groups get carrier licenses when they would get additional regulation for doing so?'

Technical feasibility of emergency mobile roaming

Most stakeholders agreed that temporary mobile roaming was technically feasible, although views differed on its desirability from a policy perspective.

One attendee noted that temporary mobile roaming is being implemented in several overseas jurisdictions, including the USA, Canada and Japan. They expressed the view that this change is likely inevitable considering the increasing frequency of natural disasters, and that industry should start having conversations about how it would work in an Australian context.

However, a number of technical and policy issues were raised with roaming.

The first of these was the cost, with differing views expressed about the likely scale of the required expenditure. One stakeholder noted that temporary mobile roaming would likely be cheaper to implement if it was done so via a standardised solution, rather than one created specifically for the Australian market. Regardless of quantum, stakeholders were of the view that this cost should be borne by government.

The second issue raised was the risk of a 'signalling tsunami', whereby customers from a network experiencing an outage all attempted to join a new network at once and overwhelmed it. There is a possibility of this affecting the customers of the surviving network, as well as emergency services personnel and 000 callers. This was viewed as a substantial risk, but one that will be significantly mitigated by the implementation of 3rd Generation Partnership Project (3GPP) standards for 5G networks.

The third issue discussed can broadly be categorised as the scope of temporary mobile roaming. Stakeholders agreed that temporary mobile roaming must be limited in its temporal, geographic and usage scope. Opinions were expressed that roaming should be limited to the immediate time period of the disaster and not extended before or after this point in time. Some attendees preferred roaming to be constrained to the limited geographical areas disrupted, and for this location to be determined by the mobile network operators themselves. Finally, several attendees expressed a preference for roaming that only extended to text and voice, with only the original customers of the surviving network having access to data.

The fourth issue related to the effectiveness of temporary mobile roaming. One stakeholder noted that the majority of network failures are due to power outages, which will often affect towers of all providers equally. If no tower is operating during a disaster, then roaming will be ineffective. As such, temporary mobile roaming was not viewed by stakeholders as a panacea solution to network failures during disasters, but as a potential part of a broader solution. One example of alternative options to reduce outages raised during the session was the hardening of power supplies to tower sites.

'We are really supportive of emergency roaming. The US carriers are working on this as well as those in Canada and Japan.'

'It's unclear exactly what issue we're trying to fix [with temporary mobile roaming]. Power going out takes out all MNOs, so this won't fix that.'