AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Mobile Infrastructure Report 2025

November 2025

Acknowledgment of country

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

Australian Competition and Consumer Commission
Land of the Ngunnawal people
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ACCC 11/25_25-87

www.accc.gov.au

Contents

1. Key findings

1.1 TPG expands network coverage with network sharing arrangement, reduces site count in own network

In January 2025, Optus and TPG Telecom (TPG) launched their Multi-Operator Core Network (MOCN). As a result, Optus will use certain TPG spectrum (700 MHz, 1800 MHz, 3600 MHz and 3700 MHz bands) in regional areas to supply mobile services, and provide TPG with access to its network in those areas (around 17% of the Australian population). TPG will also either transfer to Optus or decommission a number of existing sites in regional areas.

Access to a greater quantity of spectrum enables Optus to provide additional capacity and coverage in regional areas. TPG gains an expanded regional coverage footprint and offers 4G and 5G retail and wholesale services.

As at 31 January 2025, 2,443 sites were reported under the Optus-TPG MOCN for use by TPG. Most of these sites are in regional areas (2,114 sites) with 326 sites in remote areas and 3 sites in Major Cities.[1] 451 of these sites are 5G-enabled.

Consequently, TPG has decommissioned 623 sites in its own network since 31 January 2024. 578 of these sites are in regional and remote areas. This has led to a net reduction in TPG's own total network site count of 505 sites to 5,207 sites in January 2025 with 118 new sites added over the same period.

While the ACCC no longer conducts analysis on geographic coverage due to issues with comparability and transparency of each MNO's coverage maps[2], TPG's geographic coverage has significantly increased since the last reporting period due to the Optus-TPG MOCN. Due to the network sharing arrangement, TPG could access 7,650 sites in January 2025, compared to 5,712 in January 2024 with an increase of 1,590 sites in regional areas, and 284 more sites in remote areas.

1.2 Telstra continues to have the most mobile sites, Optus added most sites since 2024

As at 31 January 2025, Telstra had the most mobile sites (11,767 sites) followed by Optus (9,391 sites) and TPG (5,207 sites). Optus's total mobile site count increased the most (190 more sites) since 2024, followed by Telstra (60 more sites) and TPG (505 fewer sites).

Since 2021, while Optus and Telstra have added a similar number of sites to their network in net terms, 1,153 and 1,001 sites, respectively, Optus increased its total site count by 14%, while Telstra increased its total site count by 9%. However, TPG removed 685 sites from its own network over the same period with most of the sites being removed since 2024 likely due to the Optus-TPG MOCN.

1 Regional areas of Australia means the sum of Inner and Outer Regional Remoteness Areas. Remote areas of Australia means the sum of Remote and Very Remote Remoteness Areas.

2 On 28 October 2025, the Minister for Communications tabled a letter in the Senate to the Australian Communications and Media Authority (ACMA) outlining her intention to issue a Direction to the ACMA to make new rules to improve the preparation and presentation of mobile coverage maps, including by mandating that mobile providers publish coverage maps using a consistent set of metrics.

TPG's own network is heavily concentrated in metropolitan areas with 85.4% of its mobile sites located in Major Cities, noting that when MOCN sites are taken into account this falls to 58.1%. In comparison, 61.8% of Optus's and 48.7% of Telstra's sites are in Major Cities.

Optus has 20.1% of its mobile sites located in Inner Regional Australia, followed closely by Telstra (19.8%) and TPG (10.6%). Telstra has the highest percentage of its mobile sites located in Outer Regional Australia, Remote and Very Remote Australia.

1.3 Optus and TPG continue to focus on 5G roll out mainly in Major Cities while Telstra shifts focus to regional and remote areas

Telstra had the most 5G sites (6,421 sites) with 1,482 more than Optus (4,939 sites) and 2,662 more than TPG (3,759 sites) in 2025. Since 2021, the MNOs have added a comparable number of 5G sites to their networks. Optus has added 3,929 5G sites to its network compared with 3,726 and 5G sites for Telstra and 3,596 for TPG. However, in the last year, Telstra has added 1,339 5G sites to its network compared with 901 sites for Optus and 709 sites for TPG.

In Major Cities, in 2025, the percentage of each MNO's mobile sites that are 5G capable was fairly even. TPG was slightly ahead with 76.4% of its mobile sites in Major Cities being 5G capable, followed by Optus (71.2%) and Telstra (70.5%).

For Optus and TPG, the vast majority of their 5G capable sites continue to be rolled out in Major Cities in line with previous years. 70% of the 5G sites added to Optus's network since 2024 were in Major Cities compared with 82% for TPG. In contrast, only 17% of Telstra's new 5G sites were in Major Cities. Outside of Major Cities, Telstra generally had a much larger percentage of 5G capable sites except for Inner Regional Australia where TPG leads. Telstra's higher 5G site percentage is most noticeable in Remote and Very Remote Australia.

Additionally, since 2024, Telstra has added 5G 850MHz band spectrum to 1,816 more sites which is a significant acceleration in its deployment of this band for 5G in comparison to earlier years. This growth is likely driven by the spectrum made available in this band following Telstra's 3G closure. Conversely, TPG (675 sites) and Optus (835 sites) deployed substantially less sites with their most used 5G low band spectrum band since last year. In 2025, Optus was the only MNO to make noticeable use of a secondary low band spectrum for 5G sites using 700 MHz for the first time at 460 sites.

2. Background

The Mobile Infrastructure Report 2025 provides analysis on the changes in the national MNOs' mobile infrastructure from 2018 to 2025, based on information collected from the MNOs under the *Audit of Telecommunications Infrastructure Assets – Record Keeping Rules* (Infrastructure RKR).

The ACCC has collected Infrastructure RKR data relevant to mobile infrastructure from the national MNOs – Singtel Optus Pty Limited (Optus), Telstra Corporation Limited (Telstra) and TPG Telecom Limited (TPG) – for the period from 2018 to 2025. We have disclosed this data pursuant to section 152BUA of the *Competition and Consumer Act 2010*. The disclosed Infrastructure RKR data includes detailed information on the mobile sites associated with each MNO's mobile network and historical coverage maps as at 31 January for each year from 2018 to 2025.

The datasets are available at data.gov.au at the following address: ACCC Mobile Infrastructure Report – data release.

For each year from 2018 to 2025, the data made available includes:

- an Excel spreadsheet containing a list of the MNO's active mobile sites, with unique identification number (i.e. Radio Frequency National Site Archive (RFNSA) ID), the location of the site, the type of technology and associated spectrum deployed at each site and whether the site is co-funded under a government co-contribution program and if so, which one[3]
- coverage maps by technology (3G, 4G and 5G) and, in some instances, also by frequency bands.[4]

The ACCC has also derived and published key statistics from the relevant data. These are contained in an Excel spreadsheet titled 'Mobile Infrastructure Report 2025 – output tables' and is available on the ACCC's website at: Mobile Infrastructure Report.

The key statistics include:

- the total number and the change in the number of mobile sites on which an MNO operates radio equipment for 3G, 4G and 5G technologies[5]
- the number of new and decommissioned sites and the proportion of new sites that are co-funded under a government co-contribution program
- the extent to which the MNOs are co-locating on the sites reported
- the number of, and the change in the number of, sites on which each frequency band is deployed for each technology.

The key statistics are also disaggregated by Australian Bureau of Statistics' (ABS) Australian Statistical Geography Standard (ASGS) Remoteness Structure and state/territory. The 2016 version of this ABS Remoteness Structure classification has been applied to all reference years between 2018 and 2022 (inclusive). The latest, 2021 version of this classification has been applied to all reference years from 2023 onwards. As a result, some of the changes in the data between 2022 and 2023 are the result of re-classification in ABS Remoteness Area. The impact of this update is minor.

3 Unique identification number (RFNSA ID) and co-funding status only available from 2020 onwards.

4 MNOs are only required to provide coverage maps by frequency bands from 2020 onwards. However, some have chosen to provide maps by frequency bands in previous years whereas others have provided maps by technology type. The ACCC has used the frequency band maps provided by an MNO to construct technology level maps where the latter was not already provided by the MNO.

5 Analysis is limited to 3G, 4G and 5G technologies.

The ACCC discontinued mobile coverage analysis in last year's report due to the challenges associated with the transparency of modelling assumptions and the comparability of mobile coverage maps.[6] Therefore, this report only includes analysis on mobile sites.

The disclosure of the Infrastructure RKR data, together with the derived statistics and Mobile Infrastructure Report stems from an earlier ACCC commitment and provides:[7]

- more transparency on how the MNOs' mobile infrastructure and coverage have changed over time and scrutiny of these changes in specific geographic areas
- more accountability over investment claims made by the MNOs, particularly in specific geographic areas
- useful information on the state of mobile networks for policymakers, particularly when formulating policy responses to mobile coverage issues.

6 See Mobile Infrastructure Report 2024.

7 ACCC, *Measures to address regional mobile issues*, October 2017, p 26.

3. Mobile site analysis

A mobile site hosts radio equipment that uses radiofrequency spectrum to provide connectivity to mobile devices. With the use of backhaul, end users are connected to their network provider's core network for voice and data connectivity. A mobile site exists in various forms including on a mobile tower, on top of commercial or residential buildings and light poles as well as inside buildings, collectively referred to as passive infrastructure. Passive infrastructure may be owned and operated by an MNO or a third party such as a specialist infrastructure provider.

An MNO may deploy their equipment on the same passive infrastructure as another MNO(s). This is known as co-location, which is a form of passive infrastructure sharing (see section 3.7). Co-location is one way to reduce the cost of site deployment. This enhances the ability of MNOs to invest in additional mobile infrastructure to improve their coverage, thereby promoting competition in downstream markets. Due to the use of co-location, the total number of mobile towers/structures in Australia is not equal to sum of the mobile sites for each MNO.

MNOs may also reduce network cost by entering into active sharing arrangement such as the Multi-Operator Core Network (MOCN) arrangement between Optus and TPG. In this case, that arrangement has allowed TPG to access Optus' networks in expanding the network footprint it offers to its wholesale and retail customers but reduce the number of mobile sites in its own network.

The number of mobile sites an MNO has equipment deployed on provides an indication of the overall scale of their network. MNOs add (see section 3.4) and remove sites (see section 3.6) from their network over time. An MNO can add a new site to improve capacity/reduce congestion but with no change in the overall coverage of their network (i.e. site densification).

Site densification has become more common with the roll out of 5G. An MNO may decommission a site because it has added equipment to a new mobile site nearby which provides the same or more depth and/or breadth of coverage. A mobile site can also have several technologies installed on it simultaneously. Therefore, MNOs may also add new equipment compatible with newer mobile technology on new or existing sites or remove older, legacy technologies such as 2G and 3G. Furthermore, it may, in some cases, be costly to maintain or upgrade a site (for example, from 3G to 4G/5G) so an MNO may decommission a site and deploy a new site at a lower cost or rely on a nearby site for coverage and/or capacity.

For these reasons, changes in the number of mobile sites an MNO operates (see section 3.1–3.3) is not necessarily indicative of the financial investment it has made on its network. The cost of rolling out a new mobile site could also vary across ABS Remoteness Areas. Adding a new site in a Major City will generally cost less than a new site in a Remote or Very Remote area. Additionally, as noted above, active sharing arrangements can reduce the number of sites in an MNO's network, but this does not mean a reduction in the services and/or coverage offerings to its retail and/ wholesale customers.

Due to the higher cost of network deployment in regional and remote areas and the lower population density, the commercial incentives to deploy network infrastructure in these areas are typically lower than in metropolitan areas. Consequently, co-contribution funding may be a key driver for MNOs when considering expanding mobile coverage into these areas. Local, state and federal governments have developed co-contribution programs to provide subsidies to network operators and infrastructure providers in infrastructure deployment in these areas. Mobile sites funded under these programs are considered co-funded sites (see section 3.5).

The ACCC has decided to discontinue analysis on 3G sites (including spectrum deployed) given all MNOs have either closed or commenced closing their 3G networks. As at 31 January 2025, Optus

still operated a small number of 3G sites. For completeness, analysis on 3G sites as at 31 January 2025 is still available in the output tables that accompany this report.

Analysis on TPG and Optus-TPG MOCN sites

For the purposes of mobile site analysis below, TPG's own site information is presented as well as the combined sites it can access as a result of the Optus-TPG MOCN arrangement (referred to as TPG plus Optus-TPG MOCN). For the purposes of analysis on spectrum deployed, TPG information is presented as relating to its own network, however, spectrum deployed under the Optus-TPG MOCN arrangement is presented as a standalone category (referred to as Optus-TPG MOCN).

3.1 Total sites

Telstra had the most mobile sites (11,767 sites) followed by Optus (9,391 sites) and TPG (5,207 sites) as at 31 January 2025. Optus's total mobile site count increased the most of all MNOs (190 more sites) since 2024, followed by Telstra (60 more sites). TPG's total mobile site count on its own network decreased by 505 sites driven primarily by decommissioning of sites located in the Optus-TPG MOCN areas. As at 31 January 2025, there were 2,443 sites reported for the Optus-TPG MOCN. This means that collectively TPG had access to a total of 7,650 sites as at 31 January 2025.

Since 2021, in percentage terms, Optus has increased its total site count the most, up 14%, followed by Telstra (9%). TPG has reduced its site count in its own network by 12% during the same period. During this period, Optus and Telstra added a similar number of sites to their network in net terms, 1,153 and 1,001 sites, respectively (Figure 3.1). On the other hand, TPG removed 685 sites from its own network over the same period (Table 3.1).

The divergence in the number of mobiles sites added to the MNO's networks has increased the gap between the MNOs with the greatest and fewest number of sites in their own networks. For example, in Major Cities in 2025 the gap was 1,355 sites between Optus and TPG. This is substantially higher than the gap of 663 sites in 2021 and similar to the gap of 1,358 sites in 2024 (both between Telstra and TPG). This gap is likely to grow over time as TPG reduces its own network infrastructure in areas covered by the Optus-TPG MOCN.

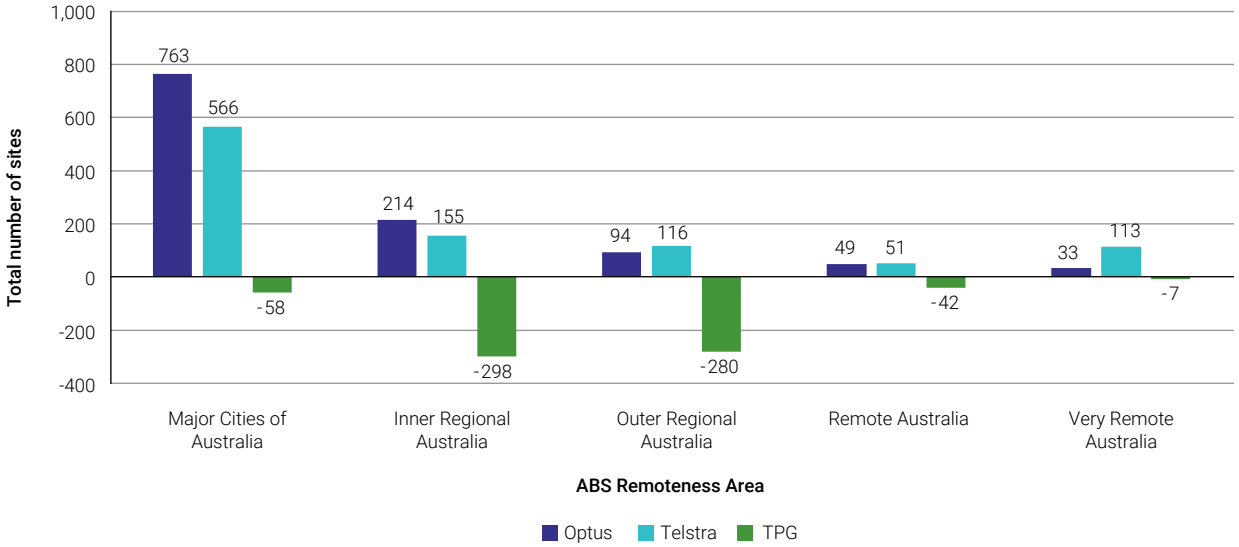
In regional areas and remote areas of Australia, Telstra also had substantially more sites than the other MNOs between 2021 and 2025 (Table 3.1). However, the gap in the number of mobile sites between Telstra and Optus appears to have narrowed. In regional areas in 2025, Telstra had 38% more sites than Optus, down from 44% in 2021. While in remote areas in 2025, Telstra had 271% more sites than Optus, a drop from 308% in 2021.

As at 31 January 2025, TPG was able to access significantly more sites in regional (2,855 sites) and remote (347 sites) areas compared to previous years due to the Optus-TPG MOCN. As at 31 January 2024, TPG's own network had 1,265 sites and 63 sites in regional and remote areas, respectively.

Table 3.1: Total number of sites in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	5,037	5,294	5,416	5,665	5,800
Telstra	5,166	5,257	5,493	5,742	5,732
TPG	4,503	4,337	4,383	4,384	4,445
TPG plus Optus-TPG MOCN	-	-	-	-	4,448
Regional areas of Australia[8]					
Optus	2,822	2,939	2,975	3,077	3,130
Telstra	4,054	4,139	4,165	4,264	4,325
TPG	1,319	1,321	1,318	1,265	741
TPG plus Optus-TPG MOCN	-	-	-	-	2,855
Remote areas of Australia[9]					
Optus	379	399	430	459	461
Telstra	1,546	1,606	1,644	1,701	1,710
TPG	70	70	68	63	21
TPG plus Optus-TPG MOCN	-	-	-	-	347
Total					
Optus	8,238	8,632	8,821	9,201	9,391
Telstra	10,766	11,002	11,302	11,707	11,767
TPG	5,892	5,728	5,769	5,712	5,207
TPG plus Optus-TPG MOCN	-	-	-	-	7,650

Figure 3.1: Changes in total number of sites in each ABS Remoteness Area – 2021 to 2025



8 Regional areas of Australia means the sum of Inner and Outer Regional Remoteness Areas.

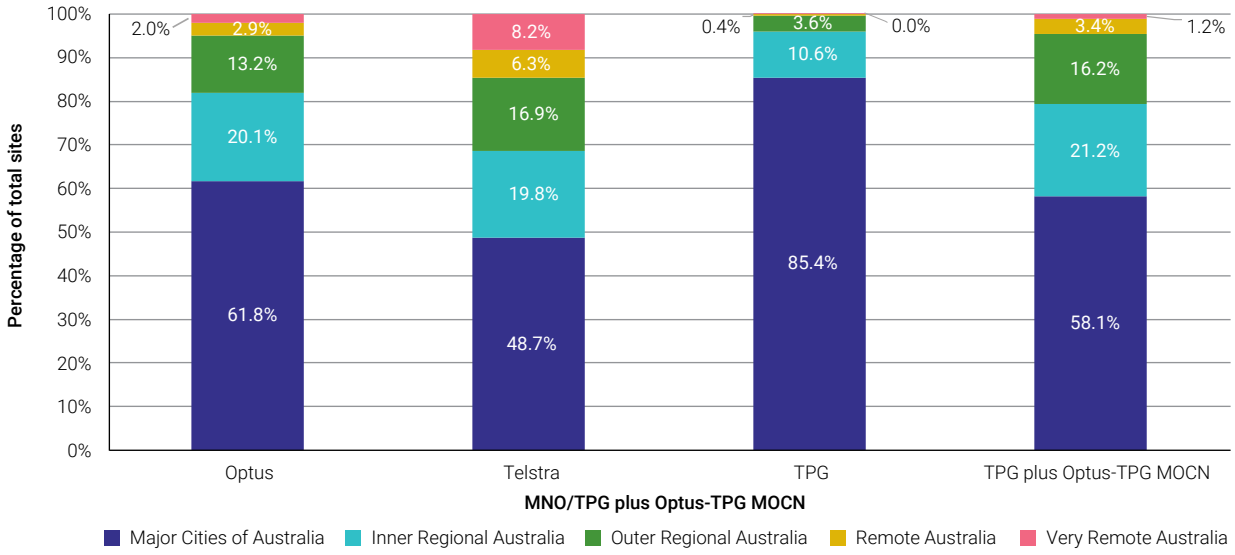
9 Remote areas of Australia means the sum of Remote and Very Remote Remoteness Areas.

Figure 3.2 below shows each MNO's mobile sites, as well as overall sites that can be accessed by TPG with the implementation of the Optus-TPG MOCN, by ABS Remoteness Area as a percentage of total sites as at 31 January 2025.

TPG network is largely metropolitan with 85.4% of its mobile sites located in Major Cities. This is approximately 24 percentage points higher than Optus (61.8%) and more than 35 percentage points higher than Telstra (48.7%). After accounting for sites accessible in the Optus-TPG MOCN, this percentage drops to 58.1% for TPG.

Optus has 20.1% of its mobile sites located in Inner Regional Australia, followed closely by Telstra (19.8%) and TPG (10.6%). But after accounting for sites accessible in the Optus-TPG MOCN, 21.2% of the sites TPG can access are in Inner Regional Australia. Conversely, in Outer Regional Australia, Remote and Very Remote Australia, Telstra has the highest percentage of its mobile sites located in those areas.

Figure 3.2: Proportion of sites in each ABS Remoteness Area – 2025



3.2 5G sites

As at 31 January 2025, Telstra had the most 5G sites (6,421 sites) with 1,482 more 5G sites than Optus (4,939 sites) and 2,662 more sites than TPG (3,759 sites). This difference is somewhat attributable to the fact that Telstra commenced its 5G roll out earlier than Optus and TPG. However, since 2021, the MNOs have added a comparable number of 5G sites to their network. Optus has added 3,929 5G sites to its network compared with 3,726 and 3,596 5G sites for Telstra and TPG, respectively. But in the last year, Telstra has added the most 5G sites (1,339 sites), followed by Optus (901 sites) and TPG (709 sites). TPG can also access 451 additional 5G sites under the Optus-TPG MOCN which equates to a combined 4,210 5G sites accessible by TPG (Table 3.2).

For Optus and TPG, the vast majority of their 5G capable sites continue to be rolled out in Major Cities. For example, 630 or 70% of the 5G sites added to Optus's network since 2024 were in Major Cities. Similarly, for TPG, 82% or 584 5G sites added since last year were in Major Cities. In contrast, of the 5G sites Telstra added to its network since 2024 only 17% (or 234 sites) were in Major Cities (Figure 3.3). Optus had the most 5G sites in Major Cities (4,129 sites) followed by Telstra (4,039 sites) and TPG (3,398) as at 31 January 2025.

Figure 3.4 further highlights the current focus of 5G roll out in Major Cities. In Major Cities, in 2025, the percentage of each MNO's mobile sites that are 5G capable was fairly even. TPG was slightly ahead with 76.4% of its mobile sites in Major Cites 5G capable, followed by Optus (71.2%) and Telstra (70.5%). However, in areas outside Major Cities, Telstra generally had a much larger percentage of 5G capable sites apart from Inner Regional Australia where TPG leads. Telstra's higher 5G site percentage is most noticeable in Remote and Very Remote Australia.

The ACCC expects to see continued growth in 5G investment by the MNOs in their 5G networks. Given the MNOs continue to focus on expanding their 5G networks, the MNOs' state of 5G networks at the publication of this report may be significantly different to what is shown in Table 3.2 and Figures 3.3 and 3.4. This is because the reference date for each year's data is 31 January.

Table 3.2: Total number of 5G sites in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	975	1,790	2,632	3,499	4,129
Telstra	2,252	3,140	3,521	3,805	4,039
TPG	161	991	1,934	2,814	3,398
TPG plus Optus-TPG MOCN	-	-	-	-	3,400
Regional areas of Australia[10]					
Optus	35	136	258	511	770
Telstra	438	906	983	1,174	1,943
TPG	2	38	127	234	359
TPG plus Optus-TPG MOCN	-	-	-	-	770
Remote areas of Australia[11]					
Optus	-	6	15	28	40
Telstra	5	25	55	103	439
TPG	-	-	2	2	2
TPG plus Optus-TPG MOCN					40
Total					
Optus	1,010	1,932	2,905	4,038	4,939
Telstra	2,695	4,071	4,559	5,082	6,421
TPG	163	1,029	2,063	3,050	3,759
TPG plus Optus-TPG MOCN	-	-	-	-	4,210

10 Regional areas of Australia means the sum of Inner and Outer Regional Remoteness Areas.

11 Remote areas of Australia means the sum of Remote and Very Remote Remoteness Areas.

Figure 3.3: Changes in number of 5G sites in Major Cities – year-on-year – 2021 to 2025

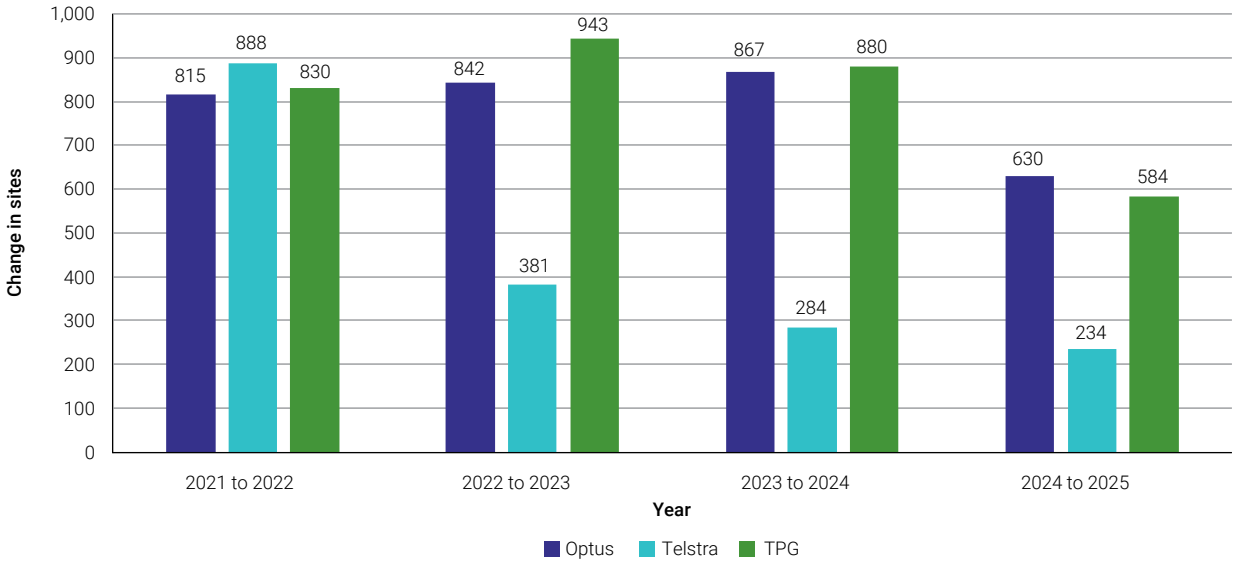
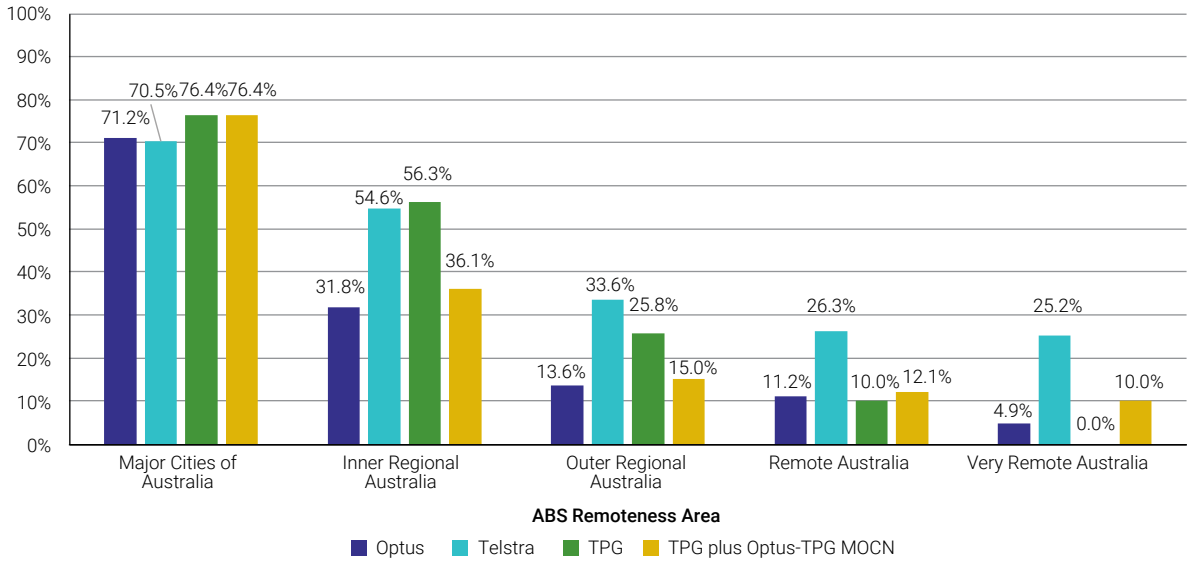


Figure 3.4: Proportion of mobile sites that are 5G capable in each ABS Remoteness Area – 2025



3.3 4G sites

Nationally, growth in the number of 4G sites has been mixed across the MNOs since 2021 as the MNOs focus on 5G roll out (Figure 3.5). Telstra increased its number of 4G sites between 2021 and 2025 likely driven by the closure of its 3G network. Optus's growth in 4G sites has been mixed with higher growth in 4G sites every second year of the 2021–2025 period.

TPG's 4G sites has experienced minimal growth or declined during the relevant period. The number of TPG's own 4G sites since 2024 decreased by 501 sites, which is likely to have been primarily driven by the Optus-TPG MOCN and the associated decommissioning of sites in the MOCN areas (see section 3.6). As of 31 January 2025, TPG was able to access 2,442 4G-enabled sites under the Optus-TPG MOCN which equates to a combined 7,647 4G sites that TPG can access.

Since 2021, in Major Cities, Optus and Telstra have added roughly the same number of 4G sites to their network, 862 and 850 sites respectively. TPG 4G site count in Major Cities decreased by 13 over the same period (Table 3.3).

In regional areas of Australia, Telstra added more 4G sites than Optus and TPG between 2021 and 2025. Over the period, Telstra added 516 sites, followed by Optus (330 sites) and TPG (-521 sites). Telstra also added substantially 4G sites then Optus and TPG in these areas since 2024.

In remote areas of Australia, Telstra also added significantly more 4G sites to its network than the other national MNOs between 2021 and 2025. This is unsurprising given that Telstra has the largest 4G network coverage footprint and has also benefited from a large share of co-contribution program funding (see section 3.5).

In particular, Telstra experienced higher growth in 4G sites in regional and remote areas between 2024 and 2025. This was likely driven by its need to upgrade its 3G only sites ahead of the 3G network closure in late 2024.

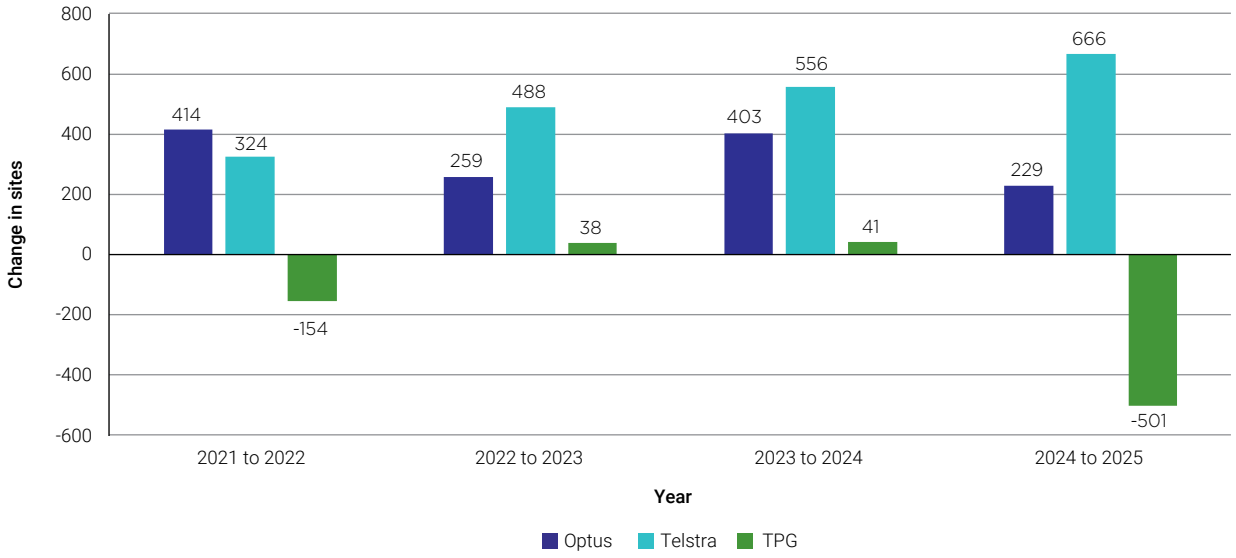
Table 3.3: Total number of 4G sites in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	4,911	5,185	5,367	5,623	5,773
Telstra	4,846	4,941	5,213	5,493	5,696
TPG	4,456	4,301	4,344	4,378	4,443
TPG plus Optus-TPG MOCN	-	-	-	-	4,446
Regional areas of Australia[12]					
Optus	2,796	2,913	2,956	3,063	3,126
Telstra	3,804	3,917	3,986	4,114	4,320
TPG	1,262	1,264	1,258	1,265	741
TPG plus Optus-TPG MOCN	-	-	-	-	2,855
Remote areas of Australia[13]					
Optus	304	327	361	401	417
Telstra	1,041	1,157	1,304	1,452	1,709
TPG	63	62	63	63	21
TPG plus Optus-TPG MOCN	-	-	-	-	346
Total					
Optus	8,011	8,425	8,684	9,087	9,316
Telstra	9,691	10,015	10,503	11,059	11,725
TPG	5,781	5,627	5,665	5,706	5,205
TPG plus Optus-TPG MOCN	-	-	-	-	7,647

12 Regional areas of Australia means the sum of Inner and Outer Regional Remoteness Areas.

13 Remote areas of Australia means the sum of Remote and Very Remote Remoteness Areas.

Figure 3.5: Changes in number of 4G sites – year-on-year – 2021 to 2025



3.4 New sites[14]

Between 2024 and 2025, the MNOs collectively added a total of 813 new sites across their 3 networks. Telstra deployed 413 new sites followed by Optus (282 sites) and TPG (118 sites) This is down from the collective 1,026 new sites added between 2023 and 2024 and the 960 new sites added between 2022 and 2023.

A majority (63%) of these new sites added between 2024 and 2025 were deployed in Major Cities. In Major Cities, Optus deployed the greatest number of new sites (218 sites), followed by Telstra (186 sites), and then TPG (106 sites) (Figure 3.6).

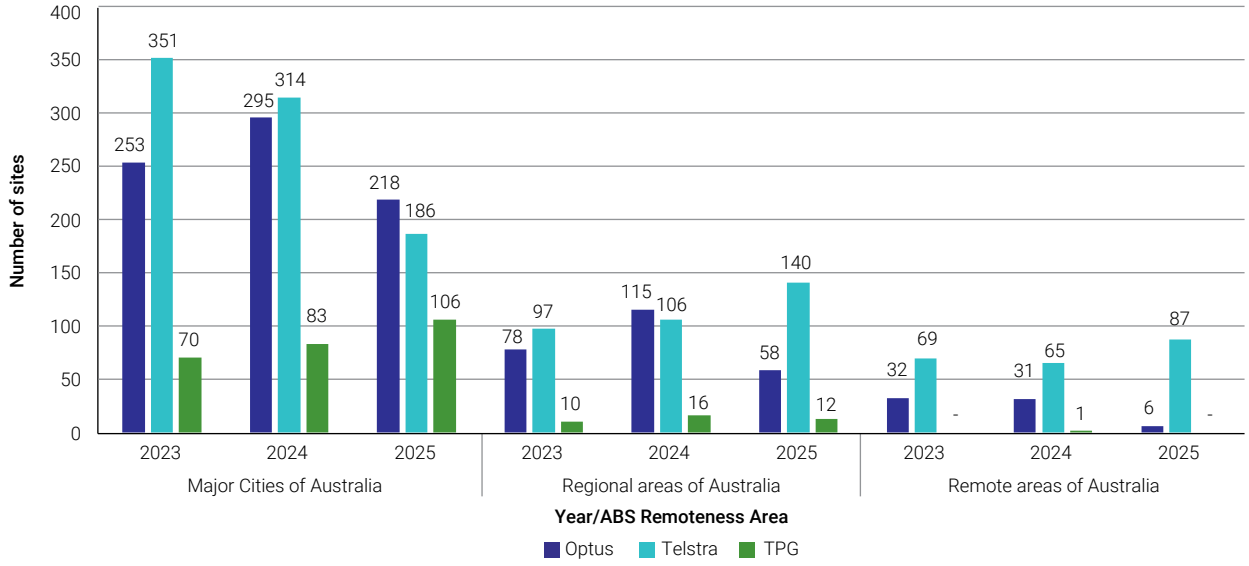
Over the same period, the MNOs deployed a materially lower number of new sites in regional[15] and remote[16] areas of Australia compared to Major Cities. In regional areas of Australia, Telstra added substantially more new sites (140) than Optus (58) and TPG (12) (Figure 3.6). Telstra continues to dominate the number of new sites in remote areas of Australia with 76% of new sites in these areas rolled out by Telstra since 2022. Between 2024 and 2025, Telstra add 87 new sites to its network in remote areas of Australia compared with 6 new sites by Optus. TPG did not add any new sites to its network in remote areas of Australia in the last year. This is not unexpected given TPG is able to access mobiles sites in remote areas of Australia through its MOCN arrangement with Optus.

14 Due to the data requirements of the Infrastructure RKR, data is only available for new sites added from 2020 onwards. New sites should be distinguished from net increase in the number of sites, which has been discussed in previous sections.

15 Regional areas of Australia means the sum of Inner and Outer Regional Remoteness Areas.

16 Remote areas of Australia means the sum of Remote and Very Remote Remoteness Areas.

Figure 3.6: Number of new sites in each ABS Remoteness Areas – 2023 to 2025



3.5 Co-funded sites[17]

Between 2024 and 2025, Telstra deployed the greatest number of new sites that were co-funded, with 155 of its new sites receiving co-contribution program funding (equating to 37.5% of its new sites), followed by Optus with 33 sites (11.7% of its new sites) and TPG with 10 sites (8.5% of its new sites) (Table 3.4).

17 Under Rule 5(3) of the Infrastructure RKR 2020, the record-keeper is only required to identify the relevant co-contribution programs for sites that received funding on and after 18 May 2020, unless the co-contribution program is the Federal Government's Mobile Black Spot Program (MBSP), for which the record-keeper is required to identify the sites that received funding on and after 1 January 2015 and were still in operation in May 2020. This amendment did not require MNOs to resubmit its historical mobile site information with co-funded sites identified.
The Infrastructure RKR requires reporting on active sites only so there will be a lag between when funding is awarded and when the proposed site becomes active.

Table 3.4: Number of new co-funded sites in each ABS Remoteness Area – 2021 to 2025

ABS Remoteness Area	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	-	4	-	-	14
Telstra	3	3	1	-	23
TPG	-	-	-	-	6
Inner Regional Australia					
Optus	11	29	6	6	9
Telstra	38	19	4	15	37
TPG	-	-	-	-	1
Outer Regional Australia					
Optus	3	12	6	22	8
Telstra	46	23	7	27	42
TPG	-	-	-	2	3
Remote Australia					
Optus	1	9	5	13	2
Telstra	13	7	3	5	22
TPG	-	-	-	-	-
Very Remote Australia					
Optus	4	6	15	7	-
Telstra	15	15	21	13	31
Total					
Optus	19	60	32	48	33
Telstra	115	67	36	60	155
TPG	-	-	-	2	10

In recent years, one of the most significant co-contribution programs is the Federal Government's Mobile Black Spot Program (MBSP). As at 31 January 2025, 875 sites in Telstra's network received funding assistance from this program. This is significantly higher than the number of co-funded sites in Optus's and TPG's networks combined (Table 3.5). Table 3.5 also shows that an ongoing majority of the Federal Government's MBSP funded sites are in Inner and Outer Regional Australia (67.8% of sites in 2025). Additionally, there were a total of 357 co-funded sites across the MNOs in Remote and Very Remote areas in 2025, up from 334 in 2024 and 313 in 2023.

Table 3.5: Total number of Federal Government Mobile Black Spot Program sites in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	-	2	2	2	3
Telstra	11	14	15	15	15
Inner Regional Australia					
Optus	26	43	51	58	59
Telstra	222	234	233	239	244
TPG	8	8	9	9	9
Outer Regional Australia					
Optus	23	32	35	55	60
Telstra	320	340	343	351	371
TPG	44	43	41	43	46
Remote Australia					
Optus	17	22	27	35	37
Telstra	96	102	108	111	124
TPG	8	8	9	9	9
Very Remote Australia					
Optus	39	44	59	66	66
Telstra	87	98	110	113	121
Total					
Optus	105	143	174	216	225
Telstra	736	788	809	829	875
TPG	60	59	59	61	64

3.6 Decommissioned sites[18]

Between 31 January 2024 and 31 January 2025, the MNOs collectively decommissioned a total of 1,068 sites, up from 298 sites between 2023 and 2024 and significantly higher than any previous year. TPG (623 sites) and Telstra (353 sites) lead the way in terms of the number of sites decommissioned, largely driven by the Optus-TPG MOCN arrangement for TPG and the closure of a substantial number of 3G-only sites for Telstra (Table 3.6). Of the 1,068 decommissioned sites, these were largely in Inner Regional Australia (32%), Major Cities (30%) and Outer Regional Australia (26%).

18 Due to the data requirements of the Infrastructure RKR, data is only available for decommissioned sites from 2020 onwards.

Table 3.6: Number of decommissioned sites in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	75	36	152	48	83
Telstra	67	53	138	65	196
TPG	39	213	35	82	45
Inner Regional Australia					
Optus	3	4	13	7	2
Telstra	4	8	19	4	45
TPG	3	2	2	31	292
Outer Regional Australia					
Optus	-	1	3	4	3
Telstra	6	3	16	3	34
TPG	2	2	2	38	244
Remote Australia					
Optus	1	-	5	1	2
Telstra	5	4	15	3	29
TPG	-	-	-	6	35
Very Remote Australia					
Optus	-	1	1	1	2
Telstra	5	7	29	5	49
TPG	-	-	-	-	7
Total					
Optus	79	42	174	61	92
Telstra	87	75	217	80	353
TPG	44	217	39	157	623

3.7 Co-located sites[19]

Between 31 January 2024 and 31 January 2025, the level of co-location across the MNOs remained relatively steady. Telstra had the lowest percentage of co-location across the MNOs, continuing the trend seen in previous years. Of its total active sites in 2025, 33.8% were co-located with another MNO. The percentage of co-location was much higher for Optus and TPG with co-location occurring at 65.7% and 92.1% of their total active sites, respectively, in 2025. As reflected in Table 3.7, Telstra and Optus's percentage of co-located sites has been declining in recent years while TPG's level of co-location has increased. In 2021, Telstra, Optus's and TPG's total percentage of co-located sites was 34.9%, 72.7% and 87.2%, respectively (Table 3.7).

Table 3.6 also indicates that the level of co-location varies significantly across MNOs and across ABS Remoteness Areas. For example, co-location in 2025 is as high as 100% of TPG's total sites in

19 Due to the data requirements of the Infrastructure RKR, data is only available for co-located sites from 2020 onwards.

Very Remote Australia but as low as 5.4% of Telstra's sites in the same area. However, even in more densely populated Major Cites, Telstra's level of co-location remains significantly lower (43.7%) than that of TPG (92.7%) and Optus (76.0%). Generally. the level of co-location declines across all MNOs as their site locations move from Major Cities to less populated Regional and Remote areas.

This low level of co-location for Telstra flows through to a high number of 'Telstra Only' sites. Where co-location did occur, the most common combination was TPG & Optus (2,330 sites) for the first time since at least 2020, just ahead of co-located sites with all 3 MNOs present (2,327 sites). The least common combination of co-location was sites co-located by TPG & Telstra across all 5 years (Table 3.8).

Table 3.7: Proportion of each MNO's sites subject to co-location in each ABS Remoteness Area – 2021 to 2025

	2021	2022	2023	2024	2025
Major Cities of Australia					
Optus	83.4	80.3	79.0	76.7	76.0
Telstra	46.2	46.4	44.3	43.5	43.7
TPG	89.1	92.9	92.6	92.8	92.7
Inner Regional Australia					
Optus	62.5	60.9	60.5	60.3	56.0
Telstra	35.3	35.8	36.3	36.4	36.2
TPG	85.4	85.4	85.0	86.2	92.0
Outer Regional Australia					
Optus	52.9	52.4	51.9	50.8	45.1
Telstra	25.9	25.6	25.4	25.1	24.4
TPG	75.3	75.7	75.9	78.6	82.1
Remote Australia					
Optus	41.2	40.9	39.8	36.6	34.7
Telstra	11.7	11.9	12.2	12.0	12.1
TPG	62.9	64.5	65.0	67.3	55.0
Very Remote Australia					
Optus	25.8	28.0	28.4	28.5	27.7
Telstra	4.4	4.8	5.3	5.4	5.4
TPG	62.5	62.5	62.5	62.5	100.0
Total					
Optus	72.7	70.5	69.4	67.8	65.7
Telstra	34.9	35.0	34.3	33.9	33.8
TPG	87.2	90.0	89.8	90.5	92.1

Table 3.8: Total number of co-located sites by MNO combinations – 2021 to 2025

	2021	2022	2023	2024	2025
Telstra ONLY	7,005	7,149	7,428	7,741	7,787
Optus ONLY	2,252	2,548	2,696	2,964	3,220
TPG & Optus	2,446	2,440	2,459	2,454	2,330
TPG, Optus & Telstra	2,470	2,507	2,512	2,533	2,327
Optus & Telstra	1,070	1,137	1,154	1,250	1,514
TPG ONLY	755	572	590	542	411
TPG & Telstra	221	209	208	183	139

3.8 Types of spectrum deployed

An MNO uses a range of radiofrequency spectrum bands for the purpose of providing mobile services. The spectrum an MNO deploys at each of its mobile sites is one of the factors that may impact end-user experience. Radiofrequency spectrum can be used across a variety of technologies including 3G, 4G and 5G and can also be repurposed or re-farmed over time to support a different technology. Generally, spectrum is classified into 3 categories – low band, mid-band and high band. Each band has different propagation characteristics which serve a different main purpose (capacity and/or coverage) in the MNOs' networks. A mobile site can also support the deployment of multiple bands at the same time.

The capacity of a network depends on the quantity of spectrum available in a band, not on the frequency of that band. That is, the same amount of spectrum in the low band can provide the same capacity as the same amount of spectrum in the mid or high band. However, because larger amounts of spectrum are available in the higher bands those bands are likely to have greater capacity.

Table 3.9: Spectrum overview

Spectrum band	Purpose	Key characteristic	Site density	Band deployment by technology type in 2025
Low (Less than 1 GHz)	Mainly provides coverage with some capacity	Transmits information over greater distances and through obstacles such as buildings more easily than higher frequencies. This means it is ideal for providing mobile services in sparsely populated regional/remote areas.	Allows for the deployment of a smaller number of sites, as a given site provides coverage over a greater geographical area.	Optus: 3G[20], 4G, 5G Telstra: 4G, 5G TPG: 4G, 5G Optus-TPG MOCN: 4G, 5G
Mid (1–6 GHz)	Mainly provides capacity with some coverage, supplements low band	Transmits information over shorter distances than that of low band spectrum. It is likely to have a larger amount of spectrum available than in the low band, and hence a higher capacity, which makes it very useful in more populated and congested areas.	An MNO may need to build more sites when using this spectrum compared to low-band, to cover areas of the same size.	Optus: 3G[20], 4G, 5G Telstra: 4G, 5G TPG: 4G, 5G Optus-TPG MOCN: 4G, 5G
High (Greater than 6 GHz)	Mainly provides capacity	The distances information can travel is very short range (mainly line of sight) and less than both low band and mid-band spectrum. Provides significant capacity making it ideal for use in high traffic areas	An MNO will need to build more sites when using this spectrum compared to low-band and mid band to cover areas of the same size.	Optus: 5G Telstra: 5G TPG: 5G

3.9 5G sites – spectrum deployed

5G rollout is progressing, predominantly with low and mid-band spectrum. However, use of high band spectrum is beginning to grow with Telstra leading the way with 571 sites using 26 GHz (Table 3.10).

Telstra has deployed the most sites utilising low band 5G spectrum with 4,708 sites using 850 MHz spectrum, as at 31 January 2025. This is noticeably more than TPG (3,561 sites using 700 MHz) and Optus (3,491 sites using 900 MHz). Since 2024, Telstra has added 850MHz spectrum to 1,816 more sites which is a significant acceleration in the roll out of this band compared to previous years. This growth is likely driven by the spectrum made available in this band following its 3G closure. TPG (675 sites) and Optus (835 sites) deployed substantially less sites with their most used low band spectrum band since 2024. In 2025, Optus was the only MNO to make noticeable use of a second low band for 5G sites using 700 MHz for the first time at 460 sites, of which 420 sites are accessible by TPG under the Optus-TPG MOCN. TPG also has access to a similar number of additional sites with 900 MHz and 2100 MHz deployed through the Optus-TPG MOCN (424 sites for each band) (Table 3.10).

The ACCC expects to see more spectrum being deployed for 5G for future reports as the MNOs continue to re-farm spectrum previously used for 3G services. Given the data for each year is at 31

20 As at 31 January 2025, Optus had 158 active 3G sites in operation.

January the MNOs' current deployment of 5G spectrum may be substantially different from that in Table 3.10 and Figure 3.7.

Table 3.10: Total number of 5G sites using each spectrum band – 2021 to 2025

	2021	2022	2023	2024	2025
Optus					
700 MHz	-	-	-	-	460
900 MHz	-	-	982	2,656	3,491
2100 MHz	208	956	2,579	3,786	4,713
2300 MHz	291	988	1,677	2,480	3,013
3500 MHz	1,006	1,596	2,225	3,067	3,681
26000 MHz	4	25	72	123	145
Telstra					
700 MHz	-	10	11	9	9
850 MHz	-	1,836	2,605	2,892	4,708
2100 MHz	-	1	2	1	1
2600 MHz	60	269	732	1,297	2,783
3600 MHz	2,641	3,904	4,108	4,290	4,551
26000 MHz	-	102	289	521	571
TPG					
700 MHz	19	906	1,988	2,886	3,561
1800 MHz	-		-	1	138
2100 MHz	-	-	57	199	1,118
3600 MHz	145	947	1,695	2,461	3,133
26000 MHz	-	1	6	32	35
Optus-TPG MOCN					
700 MHz	-	-	-	-	420
900 MHz	-	-	-	-	424
2100 MHz	-	-	-	-	424
3600 MHz	-	-	-	-	206

Figure 3.7 shows a selective breakdown of each MNO's 5G spectrum deployment as a percentage of each MNOs total 5G sites in 2025.

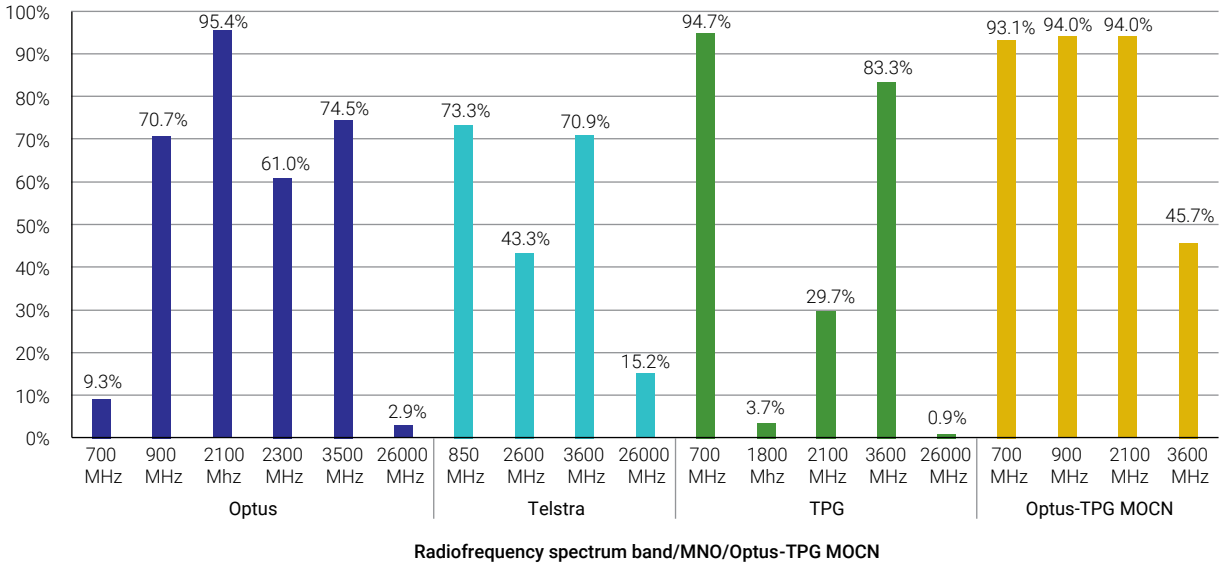
Based on the most used low band spectrum band for each MNO, TPG had the greatest percentage of 5G sites with its low band spectrum deployed (700 MHz) with 94.7% of its 5G sites using low band spectrum, followed by Telstra (73.3% using 850 MHz) and Optus (70.7% using 900 MHz). The MNOs' remaining 5G sites may use other lower deployed low band spectrum and/or are mid-band only sites.

For mid-band spectrum, Telstra had the lowest percentage of 5G sites with mid-band spectrum deployed (based on the spectrum band with the highest deployment). Telstra has deployed 3600 MHz on 70.9% of its 5G sites which is behind Optus who has deployed 2100 MHz on 95.4% of sites while TPG has deployed 3600 MHz on 83.3% of its 5G sites.

Optus's percentage of 5G sites with the main low band spectrum deployed (900 MHz) is less than the percentage of sites that have its main mid-band spectrum in use (2100 MHz). In contrast, the percentage of TPG's and Telstra's low-band site deployment is more than their mid-band deployment. This suggests MNOs are adopting a slightly different approach in how they are utilising their spectrum holdings and rolling out their 5G networks.

For high band spectrum, that is 26000 MHz, Telstra leads the way with 15.2% of its 5G sites using this spectrum band, compared with 2.9% and 0.9% for Optus and TPG, respectively.

Figure 3.7: Proportion of 5G sites using each spectrum band – 2025



3.10 4G sites – spectrum deployed

The MNOs use several mid-bands for the deployment of 4G services. Table 3.11 shows that the number of 4G sites using mid-band spectrum has increased at a faster rate than the number of 4G sites that use low band spectrum since 2020. This likely reflects that 4G mobile technology carries most traffic across the networks. Therefore, the MNOs's deployment of 4G technology focuses on expanding the capacity of the network.

However, the use of low band spectrum for 4G services has also experienced a noticeable shift since 2024 with Optus increasing deployment of the 900 MHz band and Telstra's increased use of the 850MHz band. These changes are likely driven by the 3G closure. TPG's reduction in the deployment of the 850 MHz band is likely driven in part by its MOCN arrangement with Optus.

Under the Optus-TPG MOCN in 2025, the most used bands for 4G are 700 MHz and 2600 MHz bands. TPG can access 2,432 and 1,074 sites using the 700 MHz and 2600 MHz bands respectively. In 2025, TPG's own network only deploys 700 MHz on 7 sites and does not deploy 2600 MHz on any of its sites (Table 3.11).

Table 3.11: Total number of 4G sites using each spectrum band – 2021 to 2025

	2021	2022	2023	2024	2025
Optus					
700 MHz	6,895	7,196	7,425	7,848	8,129
900 MHz	542	1,531	533	302	2,825
1800 MHz	6,140	6,522	6,786	7,226	7,464
2100 MHz	4,037	4,656	5,154	5,888	6,367
2300 MHz	3,575	3,701	3,768	3,867	3,850
2600 MHz	3,489	4,093	4,745	5,439	5,818
3500 MHz	1	-	-	-	-
Telstra					
700 MHz	8,631	8,913	9,214	9,517	10,048
850 MHz	-	-	-	110	1,472
900 MHz	-	10	4	2	-
1800 MHz	5,581	5,861	6,041	6,250	6,517
2100 MHz	2,051	2,513	2,754	3,035	3,352
2600 MHz	3,421	3,757	4,169	4,629	5,070
TPG					
700 MHz	318	11	14	12	7
850 MHz	5,383	5,401	5,457	5,527	5,053
1800 MHz	4,525	4,623	4,745	4,874	4,937
2100 MHz	3,800	3,949	4,168	4,409	4,534
2600 MHz	155	-	-	-	-
Optus-TPG MOCN					
700 MHz	-	-	-	-	2,432
900 MHz	-	-	-	-	727
1800 MHz	-	-	-	-	983
2100 MHz	-	-	-	-	702
2600 MHz	-	-	-	-	1,074

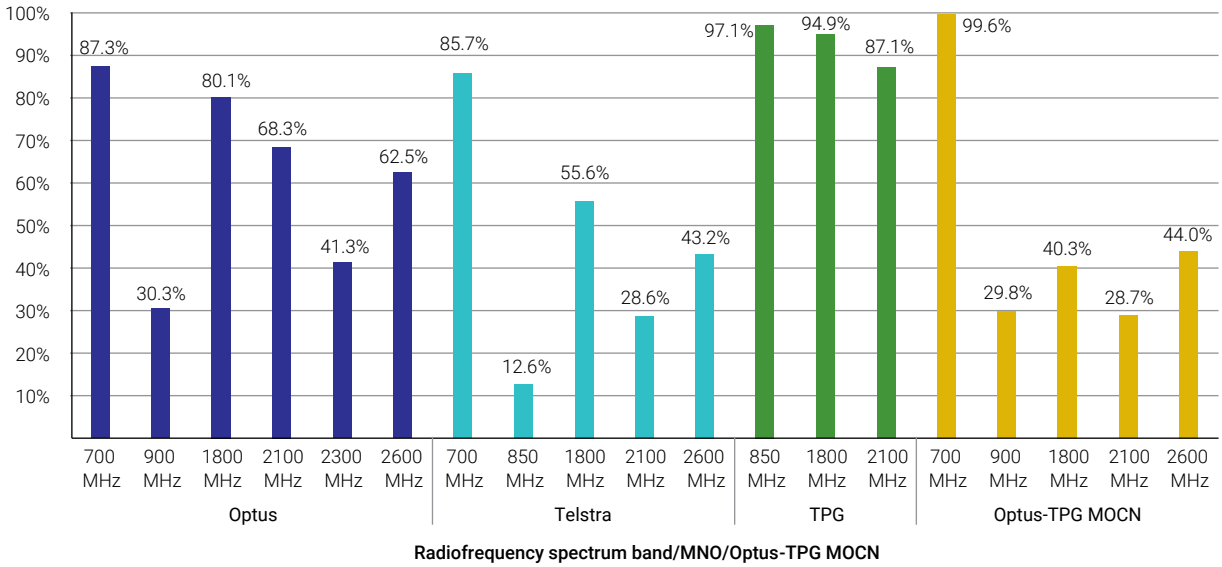
Figure 3.8 shows a selective breakdown of each MNO's 4G spectrum deployment as a percentage of each MNOs total 4G sites in 2025.

TPG had the greatest percentage of 4G sites using low band spectrum (850 MHz) at 97.1% of its 4G sites. In the Optus-TPG MOCN areas, this figure increases to 99.6% of 4G sites using low band spectrum (700 MHz). This is followed by Optus (87.3%) and Telstra (85.7%) both for 700 MHz. The MNOs' remaining 4G sites may use other less deployed low band spectrum and/or are mid-band only sites.

For mid-band spectrum, Telstra had the lowest percentage of 4G sites with mid-band spectrum deployed. As at 31 January 2025, among all 4G mid-bands, Telstra's 1800 MHz spectrum band had the greatest level of deployment at its 4G sites. Of Telstra's 4G sites, 55.6% had 1800 MHz spectrum deployed. Telstra's deployment percentage for all its mid band spectrum bands were generally

less than the mid-band deployment percentages for all of Optus's and TPG's spectrum bands. The exception to this is the deployment percentage for Telstra's 1800 MHz and 2600 MHz bands which are both greater than Optus 2300 MHz, however, this is somewhat expected given Optus's 2300 MHz is only deployed in selected metro areas. This suggests that Telstra's 4G network has a greater reliance on low-band only sites than Optus and TPG who appear to deploy both low and mid-band spectrum on their 4G sites to a greater extent than Telstra.

Figure 3.8: Proportion of 4G sites using each spectrum band – 2025

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