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TELSTRA CORPORATION LIMITED

Response to the ACCC's Draft Decision in the domestic mobile roaming declaration inquiry

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Executive summary

The ACCC's Draft Decision clearly recognises calls from regional Australia to continue encouraging investment in and competition between mobile networks.

Under current regulatory settings, Australian customers benefit from strong competition among the three major mobile network operators (**MNOs**), with a fourth MNO committed to entry. Customers can access increasingly high value plans at falling prices, which remain uniform across the country, and mobile service providers compete vigorously at the retail level based on a broad range of factors that customers value, including network coverage.

Despite the success of the market, Telstra recognises that frustration over coverage in regional and rural Australia is real. Throughout the ACCC's declaration inquiry, organisations and customers from regional and rural Australia have made clear that their priority is better mobile coverage so they can enjoy the same opportunities as customers in the big cities.

Individual operators and the industry as a whole need to do more. Telstra agrees with the ACCC that while declaring roaming is not the solution, there is scope for other measures to extend and enhance coverage and improve outcomes for regional and rural Australians. This includes creative investment approaches, technology innovation and policy settings which promote investment and competition.

Confirming the Draft Decision not to declare roaming will allow Telstra to fully play its role in enhancing and extending mobile communications services in regional and rural Australia.

The current regulatory environment is promoting competition and choice

The ACCC's Draft Decision makes a number of observations on the state of competition in mobile markets in Australia today:

- Infrastructure competition in the retail market is effective and is delivering value to customers, including to customers in regional and rural Australia.
- Nationally uniform pricing means that as mobile service providers compete intensely to win customers in low-cost, metropolitan areas, customers in regional and rural areas are benefitting from lower priced, higher value plans, despite the substantially higher costs of building infrastructure in those areas.
- Customers choose mobile service providers based on a range of factors and that geographic coverage is only one of many ways in which MNOs compete. For example, while Telstra has invested in network quality and extensive coverage, Vodafone has gained market share by targeting price sensitive customers in low-cost metropolitan areas and offering a competitive roaming service on its international networks.

Telstra agrees with the ACCC's characterisation of the state of competition in the relevant markets and provides further evidence to support this characterisation in section 02.

The relevant service being considered for declaration

The ACCC's Draft Decision describes the key features of a mobile roaming service in a manner that has allowed the ACCC to assess in substance any possible iteration of a declared roaming service description, including the different roaming services proposed by Vodafone and TPG. Telstra agrees with the ACCC's conclusion that there is no mobile roaming service description which would promote the long term interests of end users (**LTIE**) to an extent that would justify declaration.

Telstra addresses the ACCC's approach to describing a mobile roaming service in section 03.



Declaring roaming would harm the interests of end users, particularly in regional and rural Australia

Telstra agrees with the ACCC's Draft Decision that declaration would not sufficiently promote competition in the retail market and that declaration would bring with it a disproportionate risk that customers would be worse off:

- Declaration would remove geographic coverage as a factor on which MNOs can differentiate their services. While this might increase “choice” of brand across existing coverage in regional and rural communities, Telstra's view is that it would come at the expense of the benefits of improved coverage and network quality that vigorous infrastructure-based competition would otherwise deliver.
- Customers would likely face higher retail prices if roaming is declared. If nationally uniform pricing continues under declaration, MNOs would be likely to raise their prices to recover the costs of paying for wholesale roaming, and to reflect the higher quality of service they are able to offer. As acknowledged by Vodafone, it is also possible that declaration could prompt a move away from nationally uniform prices, which would result in higher prices for regional and rural Australians.

Telstra addresses the ACCC's assessment that declaration would not sufficiently promote competition in section 04.

Declaration will harm the incentives for Telstra, Optus and Vodafone to invest more

The ACCC's Draft Decision concludes there is a risk that declaration will distort investments in improving the extent and quality of coverage in regional and rural Australia.

- Telstra agrees with the ACCC that declaration would harm Optus' incentives to invest, which in turn eliminates the competitive rivalry between Telstra and Optus, denying customers the choice of a more diverse and differentiated range of products.
- Telstra's view is that the ACCC underestimates the wider impact of declaration on Telstra's investment incentives. Despite the higher costs to Telstra for building and upgrading mobile infrastructure in regional and rural areas, Telstra has continued to invest in those areas because it knows that customers place a high value on having access to Australia's largest mobile network. That is, Telstra's investments in regional and rural Australia are justified on the basis of it being able to capture revenue through a competitive advantage. If declaration removes that competitive advantage, it removes the incentive and ability for Telstra to invest and upgrade its network in regional and rural Australia.
- Telstra agrees with the ACCC that declaration would not encourage efficient investment by Vodafone.
- The ACCC should consider participation in government funding programs in assessing the impact of declaration. Such co-investment programs typically require significant co-contributions from MNOs and declaration would undermine the business case for these investments. The result will be either that future programs will be smaller in scope or require higher government contributions in order to achieve the same outcomes.

Telstra addresses the ACCC's assessment that declaration is not necessary to encourage efficient investment in mobile infrastructure in section 05.

Telstra supports other measures to improve outcomes for regional Australians

Telecommunications is vitally important for regional and rural Australia. This has been reinforced to Telstra in many discussions with regional and rural stakeholders over the last 12 months.



Throughout the ACCC's declaration inquiry, organisations and customers from regional and rural Australia have made it clear that their priority is better mobile coverage so they can enjoy the same opportunities as customers in metropolitan areas.

As declaring roaming will not extend coverage, it is clearly not the answer.

The key question then for all stakeholders is how to achieve more and better mobile coverage in rural and regional Australia.

Telstra considers the answer to this lies in four parts:

- **More and creative investment approaches:** For more than a decade, 15 per cent of Telstra's mobile network investment has gone to the most remote two per cent of the Australian population. This must continue, to effectively address the coverage challenge. However, this challenge needs to be confronted by all stakeholders – customers, communities, governments and business – and Telstra continues to work with these stakeholders to develop creative approaches to investment, including co-investment to enhance their specific coverage needs. The importance and effectiveness of co-investment cannot be understated in improving mobile coverage in regional and rural areas.
- **Leveraging technology innovation:** A renewed effort in innovation is needed in order to find solutions for better mobile coverage in regional and rural areas. Telstra has sought to leverage technology innovation to enhance and extend mobile coverage, for example with the Telstra Mobile Smart Antenna. Telstra has also redesigned the way it provides information on network extender devices to make it easier for customers to find the solution that is right for them. It has also appointed a Rural Products Manager whose role is to identify new products and solutions to improve the regional and rural customer experience.
- **Constructive engagement with regional and rural stakeholders:** Telstra recognises the need to step-up its engagement with customers in regional and rural Australia. Listening to the concerns of regional and rural Australia will enable Telstra to ensure that investment, and technology and business-model innovations, are informed by the needs of these stakeholders. Telstra has established the Rural Affairs Directorate to oversee Telstra's engagement with rural and regional stakeholders. The Directorate has created and implemented a number of initiatives aimed at improving services for regional and rural communities, including the establishment of a National Rural Board and Regional Advisory Councils which provide a voice to regional and rural stakeholders and help shape Telstra's co-investment decisions.
- **Policy and regulatory settings that promote competition and investment:** Telstra agrees with the ACCC that regulatory and policy measures are needed to support improvements in regional mobile coverage, while preserving investment incentives. Telstra considers that there is a benefit to the following measures and is also open to discussing other productive ideas that promote investment and open access:
 - Improved transparency: Customers will benefit from greater visibility about the availability of coverage from MNOs and investment plans to improve coverage. Telstra considers that MNOs are best-placed to publish this information to ensure accuracy and reliability of data. Telstra is taking steps to improve transparency and ensure that customers are better informed. Such steps include enhancing protocols for disclosure of mobile coverage expansion and upgrade plans and looking at opportunities to improve the granularity of Telstra's coverage information.
 - Improving "open access" to co-funded facilities through improved co-location opportunities: Telstra considers there are opportunities to further strengthen outcomes in the Mobile Black Spot Program and other co-investment programs, including setting mandatory standards for



additional co-location capacity and leaving open the possibility of future competitive coverage through later co-location.

- Improving the facilities access regime: While the facilities access regime is working effectively, Telstra considers there should be a collaborative industry review of the facilities access regime to identify broader opportunities for improvement, including the measures suggested by the ACCC.

Telstra discusses alternative policy and regulatory measures to address regional mobile coverage concerns in section 06.



01 The relevant markets for mobile roaming

1.1. Wholesale mobile roaming services market

The ACCC is correct to find that there is a separate market for wholesale mobile roaming services (the **wholesale market**).

The ACCC is also correct in finding that a mobile roaming service is not an essential input into retail mobile services, as a network operator can extend its own network into an area in order to provide a mobile service. This includes expansion into areas currently served by a single MNO, as evidenced by Optus' continuing efforts to narrow the coverage gap.¹

1.2. National retail mobile services market

The ACCC is correct to find that there is a national retail mobile services market (the **retail market**) for the following reasons:

- Mobile services are provided on a national basis and at nationally uniform prices;
- MNOs compete nationally for market share regardless of their geographic coverage; and
- Indirect revenues from metropolitan customers drive investment decisions to extend coverage in regional and rural areas.

The ACCC's conclusion that the retail market is a national market is supported by Professor Yarrow who observes that "[s]ince the economic arguments for and against declaration all tend to emphasise the effects of coverage differentials on the national market... the [Draft Decision] approaches market definition in the most appropriate way."²

Andrew Bailey, approaching the issue as an experienced Australian telecommunications executive, also agrees that the retail market is national. In particular, Mr Bailey notes:³

Saying that competition is regional seems inconsistent with the essential value proposition of a mobile service. A mobile service offers customers not just connectivity in and around the places they live but also the option of connectivity in other areas. From a consumer's perspective, that optionality is a key reason for purchasing (and paying a premium for) connectivity in the form of a mobile service.

Mr Bailey goes on to make a common-sense observation about an inconsistency in the case made by Vodafone for separate regional markets:⁴

This seems to point to another significant inconsistency in the VHA case. Its proposed "spillover effect" envisages exactly this customer buying behaviour – metro customers being influenced by the option of remote area coverage. How then can competition be "inherently regional" when, at least on the demand side of the market, customers don't think in this way?

¹ The Ovum Report dated 2 December 2016 (**Ovum Report**) shows the majority of sites in Telstra-only areas could also be profitable for a second MNO. While the ACCC may not fully agree with the Ovum Report, it is clear that there is further scope for a reduction in the number of Telstra-only areas if infrastructure-based competition is not impeded by declaring roaming.

² Report of George Yarrow dated 15 June 2017, [15] (**Third Report of George Yarrow**).

³ Report of Andrew Bailey dated 16 June 2017, s 3 (**Report of Andrew Bailey**).

⁴ Report of Andrew Bailey, s 3.



Turning to the supply side, Mr Bailey comments:⁵

....'regionality' sits uneasily with how mobile network costs are allocated. Without doubt there are important network costs (base stations, backhaul links and so on) that can be attributed to a specific geography. I do not want to deny this reality. But many substantial mobile network costs are shared across the whole network – spectrum costs, marketing and branding, billing and customer service, some core network elements, handset deals, distribution arrangements and more. The whole idea of a network is that multiple users of a shared infrastructure all share the task of covering its fixed costs and generating a profit. Obviously individual cell sites or groups of cell sites can have lower or higher usage but to extrapolate from this to saying competition is regional seems to me an exaggeration.

Mr Bailey concludes that this is “*whole-of-network competition, not regional competition.*”⁶

1.3. Other markets

The ACCC's Draft Decision has sought views on the existence and relevance of any other markets, including the wholesale market for the supply of mobile services to mobile virtual network operators (**MVNOs**) and the downstream market for the supply of machine-to-machine (**M2M**) and mobile services related to the Internet of Things (**IoT**). Telstra's view is that market definition is purposive and is relevant for the purpose of assessing whether declaration may promote competition. In this context Telstra notes:

- MVNOs are a separate input into the retail market and have, as discussed in Telstra's Initial Submission, contributed to the competitiveness of the retail market. Telstra's view is that the wholesale market for the supply of mobile services to MVNOs is currently competitive, evidenced by the fact that each MNO provides wholesale mobile services to a number of MVNOs and there is MVNO churn between the MNOs.
- M2M and IoT services can be considered part of the broader national retail services market as they are downstream applications that are offered in conjunction with other retail mobile services including voice, SMS and broadband services. Supply side substitution between all these downstream services would suggest it is appropriate to consider them in the same national retail market.

⁵ Report of Andrew Bailey, s 3.

⁶ Report of Andrew Bailey, s 3.



02 State of competition in the relevant markets

The ACCC's Draft Decision correctly characterises the state of competition in the relevant markets:

- **Infrastructure competition in the retail market is effective.**
- **An MNO can compete effectively without having to match the geographic coverage of the largest MNO.** Customers' choice of provider is based on a range of factors. Differentiated geographic coverage is an important dimension, which customers will weigh against other considerations, including network quality, price, inclusions and handset deals. As such, extensive geographic coverage is not essential for a service provider to compete in the retail market.
- **The existence of commercial roaming agreements indicates that competition in the wholesale market is generally effective.** Telstra considers it is likely that commercial roaming agreements will continue to be a feature of the wholesale market, for example to facilitate a new entrant and provide coverage to Vodafone beyond its coverage footprint. Although, as the ACCC recognised, it is a rational outcome of the competitive dynamics in the retail market that an MNO would not offer a wholesale product that may affect its ability to compete.

In this section, Telstra addresses the ACCC's assessment in the Draft Decision of the state of competition in the retail and wholesale markets.

2.1. Geographic coverage is just one of many factors on which MNOs compete

2.1.1. Customers' perceptions of network quality are based on more than geographic coverage

The ACCC's Draft Decision is right when it states that in customers' minds, geographic coverage is not the only dimension of "coverage". Network availability, reliability and speed are also key competitive differentiators. As Andrew Bailey states:⁷

Network development is a more subtle process than simply expanding a network's geographic footprint. The appearance of smartphones a decade ago has transformed network usage. The diverse capabilities of these phones has driven spectacular growth in data traffic. What were once "nice to have" network attributes such as in-building coverage and network capacity have become much more important aspects of network quality, as experienced by users. (Needless to say, providing additional capacity or high quality in-building coverage with distributed antennae systems involves yet more capital expense.) Such dramatic usage changes makes it likely that customers discriminate between MNOs on coverage and capacity, even in areas where all three networks operate side by side.

Evidence supports the ACCC's view that customers' perceptions of the high quality of Telstra's mobile network is one factor driving customer choice of mobile service provider. [REDACTED]

⁷ Report of Andrew Bailey, s 2.



[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

[Redacted text block]

Figure 1 and Figure 2 together show that customers are well aware of the different network propositions in the market and that customers can and do choose the network with the characteristics they want. As Andrew Bailey observes, the *“process of fitting together a network and a customer base means that, over time, each carrier ends up with the network they want.”*⁹

⁹ Report of Andrew Bailey, s 2.



2.1.2. The importance of network attributes other than geographic coverage is reflected in MNO advertising

Figure 3 shows that Telstra advertises various aspects of network quality, including the reliability of its coverage in terms of signal strength and fewer dropouts, and the speed of its network. This advertising shows that coverage in “more places” is often used as an indicator of superior network quality, embracing both geographic and performance elements.

Figure 3: Telstra advertising on network quality



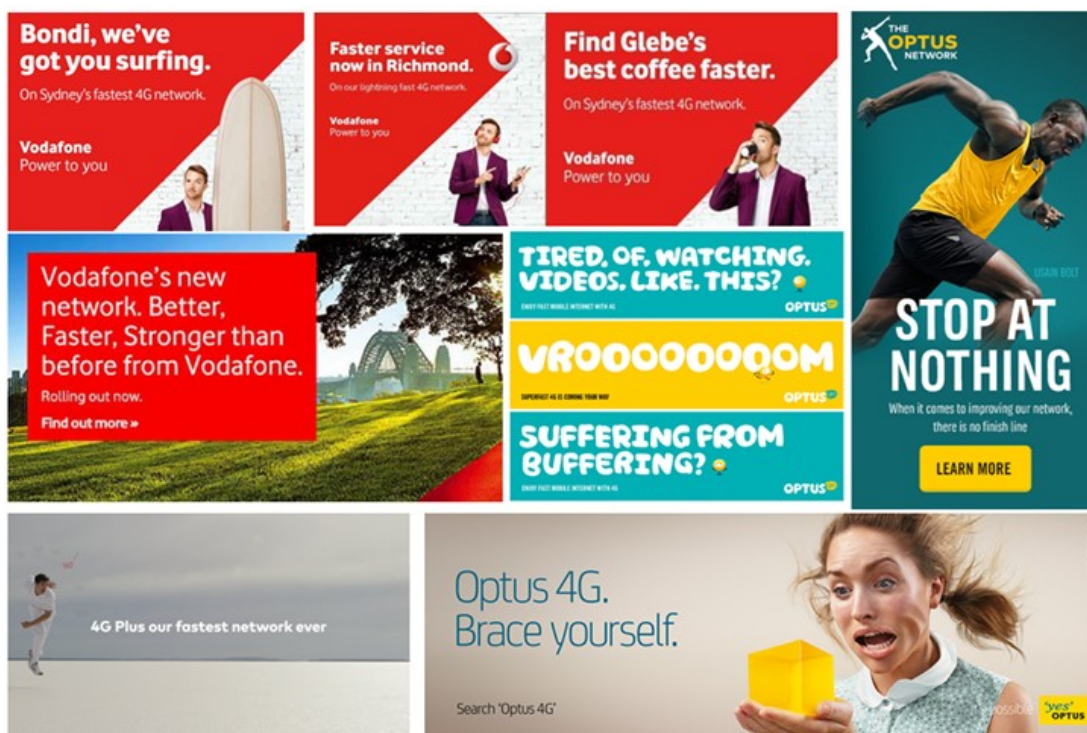


Andrew Bailey says of Telstra's strategy:¹⁰

Let's say that, knowing its metro customers value the coverage option, Telstra (or any other MNO) advertises its coverage on, for example, the Birdsville Track. In marketing such a remote location it would be promoting both its geographic coverage and, using a kind of marketing shorthand, the quality of its network in general. This marketing may well attract additional customers in Sydney and Melbourne (and even better persuade them to pay a higher price).

It is, of course, possible to have a high quality network with a smaller geographic footprint and to convey a message about network quality to customers without having to rely on the extent of geographic coverage. Figure 4 shows that both Optus and Vodafone strongly promote the quality of their networks within their coverage areas – for example, Vodafone's advertising clearly focuses on network quality in metropolitan areas.

Figure 4: Optus and Vodafone marketing on the basis of network quality



2.1.3. Retail presence is important and contributes to market share

The ACCC's Draft Decision correctly identifies the importance of retail presence in an area to an MNO's market share. Retail presence is not only a place to sell services. It provides an opportunity to service customers after sales, and signals a longer-term commitment to customers' communities.

Table 1 illustrates that Vodafone has the most retail stores in major cities, where it also has the highest market share. Vodafone's retail presence in regional and remote Australia is significantly lower than Telstra's and Optus': approximately 40 per cent of Telstra's retail stores are located outside the major cities of Australia, compared to 12 per cent (subject to rounding) of Vodafone's stores.

¹⁰ Report of Andrew Bailey, s 3.



2.1.4. Advertising spend is another factor that contributes to market share

Another factor that may explain differences in market share is the relative spend of different MNOs on advertising. [REDACTED]

2.2. MNOs with smaller geographic coverage can and do compete effectively

2.2.1. MNOs compete effectively on network quality

Western Sydney provides a good example of how Optus and Vodafone compete on network quality against Telstra. [REDACTED]



2.2.2. MNOs with a smaller coverage footprint than Telstra are able to attract customers who value a range of other factors

The ACCC's Draft Decision correctly notes that, because customers choose their mobile service provider based on a range of factors, MNOs with smaller networks are still able to compete effectively.

MNOs have made strategic decisions about how to differentiate themselves along various price, network quality and other non-price dimensions in order to meet the diverse preferences of customers in the retail market. As Andrew Bailey observes from his experience making investment and strategic decisions within an MNO, “[m]obile networks do not have a pre-ordained configuration”.¹¹ Each MNO will make iterative decisions about how to most efficiently deploy its available capital to pursue its competitive strategy: “[t]his process of fitting together a network and a customer base means that, over time, each carrier ends up with the network they want.”¹²

Mr Bailey concludes that this process will mean that:¹³

Even though there are areas where all MNOs have a network presence, there should not be an expectation that MNOs converge to having identical networks. There will be some areas where later entrants just don't want to build. There will be some areas where an MNO's distribution channels are stronger or weaker compared with its competitors. There is no reason to expect that the customer base of Optus or VHA will be identical to the customers who use Telstra. Differences in per-customer profitability and different customer usage patterns will exert divergent influences on network configurations. Even if there is, say, 90% congruence in the geographic footprint of the three MNO networks that remaining 10% can significantly influence capital efficiency.

Professor Yarrow makes a similar point from an economic perspective:¹⁴

It is clear that there are many potential dimensions of service differentiation and competition in mobile telephony. In my first report I indicated that coverage is just one dimension of a sub-set of dimensions that can broadly be viewed as pertaining to the quality of the service (i.e. forms of vertical differentiation). To these can be added a set of characteristics/dimensions that can be classified as horizontal differentiation. Then again there is price competition, which itself can take a variety of different forms. There is therefore very considerable scope for strategic differentiation, by which I mean the ability of a business to position itself within a multi-dimensional strategy space that is available to it.

¹¹ Report of Andrew Bailey, s 2.

¹² Report of Andrew Bailey, s 2.

¹³ Report of Andrew Bailey, s 2.

¹⁴ Third Report of George Yarrow, [16], [29].



...

To me, this looks like normal competition. Telstra's coverage advantage has no doubt put additional competitive pressure on Optus and VHA, to which those two companies have responded in different ways, i.e. have made different strategic choices. Those strategic responses can in turn be expected to have put increased competitive pressures on Telstra.

For example, Vodafone has, at least historically, adopted a clear strategy of targeting price sensitive customers in metropolitan areas. This has been a successful strategy for Vodafone and is evidenced by Vodafone's market shares in Australian capital cities. For example, Vodafone's market share in Sydney is approximately 30 per cent.¹⁵

Vodafone has also successfully executed a strategy to target and capture a large share of Australia's migrant community. According to Roy Morgan data, over the six months to November 2016, Vodafone claimed 32 per cent of the mobile retail market among all Australian migrants, compared with 25 per cent for Telstra and 24 per cent for Optus.¹⁶ For migrants who arrived in Australia in the previous two years, Vodafone's market share increases substantially to 47 per cent, almost twice that of Optus (24 per cent) and four times that of Telstra (12 per cent).¹⁷

Consistent with this strategy, Vodafone bought Lebara Mobile in September 2016, an MVNO that focuses on the migrant community. Vodafone's Chief Strategy Officer, Dan Lloyd, said of its acquisition of Lebara Mobile's Australian business:¹⁸

Lebara Mobile has established a market-leading niche, enabling migrant communities to stay connected with their loved ones abroad, particularly through very competitive and award-winning international mobile calling ... we look forward to championing the Lebara Mobile brand to offer choice and value to Australia's strong and growing migrant communities.

Vodafone has also sought to gain a competitive advantage over Telstra and Optus by leveraging its global network and relationships to offer a competitive international roaming package which enables customers to use their data, call and SMS plan inclusions in over 55 countries for \$5 extra per day and \$0 in New Zealand. Vodafone has said that this offer is "extremely popular".¹⁹ As domestic data allowances have grown, so has the value of Vodafone's \$5 roaming offer. In comparison, Telstra's international roaming package, "Travel Pass", offers a more limited international data allowance.²⁰

Optus, in turn, appears to be pursuing a two-fold strategy to differentiate itself from Telstra and Vodafone.

First, Optus continues to be committed (on the basis that roaming is not declared) to build network in regional and rural areas. [REDACTED]

¹⁵ Roy Morgan, *Why Vodafone is the top mobile provider in (only) Sydney*, 17 February 2017, available at: <http://www.roymorgan.com/findings/7151-mobile-phone-service-providers-market-shares-in-capital-cities-december-2016-201702171432> (accessed 15 June 2017).

¹⁶ Roy Morgan, *What's a Telstra? Who's Optus? More immigrants choose global brand Vodafone as first Australian mobile provider*, 9 January 2017, available at: <http://www.roymorgan.com/findings/7105-vodafone-the-mobile-provider-of-choice-for-immigrants-november-2016-201701091144> (accessed 24 May 2017).

¹⁷ Roy Morgan, *What's a Telstra? Who's Optus? More immigrants choose global brand Vodafone as first Australian mobile provider*, 9 January 2017, available at: <http://www.roymorgan.com/findings/7105-vodafone-the-mobile-provider-of-choice-for-immigrants-november-2016-201701091144> (accessed 24 May 2017).

¹⁸ Vodafone, Media Release, *Vodafone expands operations with Lebara purchase*, available at: <http://www.vodafone.com.au/media/vodafone-expands-operations-with-lebara-purchase/> (accessed 30 May 2017).

¹⁹ Vodafone Hutchison Australia, *Submission in response to ACCC's domestic mobile roaming declaration inquiry*, 13 March 2017, Part A, s 1.4.3 (**Vodafone Supplementary Submission**).

²⁰ Telstra, *International roaming – Mobiles on a plan*, available at <https://www.telstra.com.au/international-roaming/mobiles-on-a-plan#arrive--pass> (accessed 30 May 2017).

Telstra's Initial Submission set out examples of Optus' strategic investment in regional and rural areas.²¹

Second, Optus is pursuing a content-focused strategy by acquiring attractive content of its own, such as the English Premier League, or offering unmetered usage for popular over the top content provided by third parties, such as Netflix.

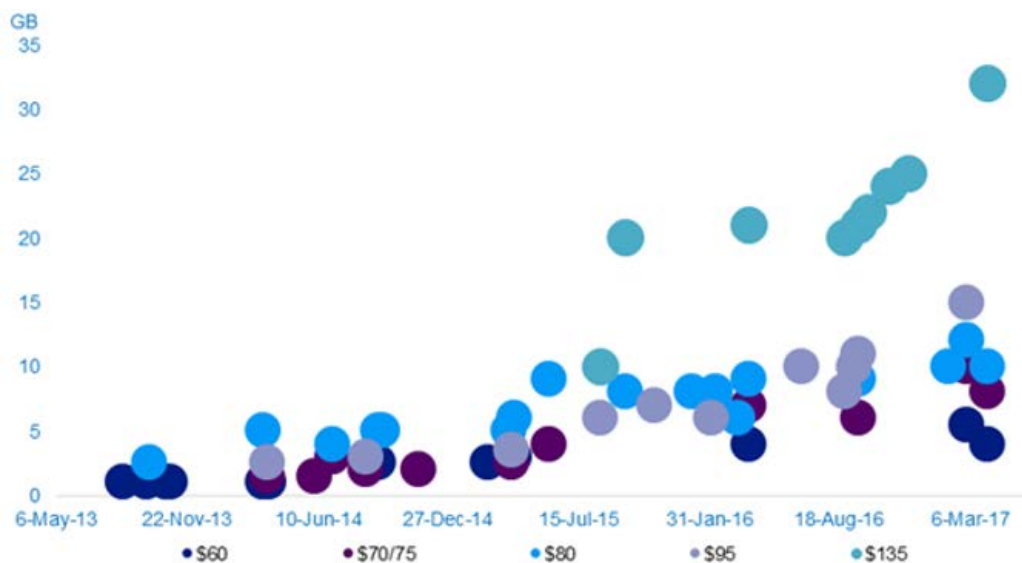
2.3. Price and value competition in the retail market is vigorous

Proof of the robustness of competition on the dimensions discussed above is the substantial value-related gains delivered year on year to customers.

As identified by the ACCC, there has been a strong decreasing trend in average retail mobile prices, which have fallen 53.4 per cent since 1997.²² The ACCC's Draft Decision also recognises the effective value of mobile services is improving, with increased inclusions such as unlimited voice and SMS services, and increasing data allowances.

Figure 6, which is an updated version of Figure 9 in Telstra's Initial Submission, shows data inclusions have continued to grow since the ACCC commenced this inquiry.

Figure 6: Telstra, Optus and Vodafone 24 month mobile plans (GB per month inclusions)



Source: Telstra, based on publicly available historic marketing information.

The ACCC separately considered rivalry on “non-price features” of mobile plans, such as content and entertainment inclusions. These value-added features are often provided to customers at no additional charge and significantly increase the value of mobile offers.

Table 4 outlines the range of inclusions available from the three MNOs for post-paid consumer mobile repayment option (MRO) plans as at April 2017. Both Telstra and Optus are offering entertainment and

²¹ Statement of Michael James Wright dated 1 December 2016, [243]-[244] (**Statement of Mike Wright**); Telstra Corporation Limited, *Submission in response to ACCC's domestic mobile roaming declaration inquiry discussion paper*, 2 December 2016, ss 1.1, 1.4.3.1, 2.3.1 (**Telstra's Initial Submission**).

²² ACCC, *Telecommunications Reports 2015-16: Price changes for telecommunications services in Australia*, February 2017, pp 96-7, available at: https://www.accc.gov.au/system/files/ACCC%20Telecommunications%20reports%202015%E2%80%9316_web.pdf (accessed 24 May 2017).



content inclusions on an unmetered basis. This means customers can enjoy these often data-intensive inclusions without using their monthly data allowances. These offers effectively provide “free” additional data to already increasing data inclusions.

Table 4: Comparison of Telstra, Optus and Vodafone's post-paid offers as at April 2017 (consumer MRO)

Contracted MMC	Telstra Consumer-MRO					Optus Consumer-MRO						Vodafone Consumer-MRO										
	\$55	\$75	\$95	\$135	\$195	\$40	\$65	\$85	\$100	\$130	\$160	\$40	\$60	\$70	\$80	\$80	\$90	\$100	\$100	\$120	\$120	
Contract Term	24m					24m						24m										
Data	1GB	3GB	8GB +4GB Bonus ¹⁶	20GB +5GB Bonus ¹⁶	30GB +5GB Bonus ¹⁶	1GB	3.5GB	7GB+ 3GB Bonus ¹¹	15GB +5GB Bonus ¹¹	30GB	100GB	1GB	3GB+ 0.5GB Bonus ⁶	6GB+ 4GB Bonus ⁶	8GB+ 3GB Bonus ⁶	6GB+ 3GB Bonus ⁶	11GB +9GB Bonus ⁶	16GB +9GB Bonus ⁶	13GB +9GB Bonus ⁶	18GB +12GB Bonus ⁶	22GB +10GB Bonus ⁶	
Talk	Unlimited					Unlimited						Unlimited										
Text	Unlimited					Unlimited						Unlimited										
IDD	Not Incl.		Unlimited ¹			Not Incl.	150 mins ⁴	300 mins ⁴	400 mins ⁴	750 mins ⁴	ULTD ⁴	Not Incl.	150 mins ⁷	Not Incl.		Incl. ⁸	Not Incl.		Incl. ⁸		Not Incl.	
Intl. text	Not Incl.		Unlimited ¹			Unlimited						Unlimited										
Intl. Roaming	Not Incl.		Incl. ³			Not Incl.				Yes ⁵		\$5 Roaming ¹⁵										
Shared Data SIM	\$5 SIM/month+100MB					\$15 SIM/month+2GB						\$15 SIM/month+2GB										
Data Pool	Incl.					Incl.						Incl.										
Entertainment	Currently Offered ²					Music Streaming ¹² , Optus Sport ¹³ , Mobile TV streaming ¹⁴						Not Incl.	Student Offer (10% off access fees, ends 9 May 2017)									
Others	Telstra Air ¹⁷ and Free 200GB Cloud Storage ¹⁸		Stay Connected			Not Incl.						Network Satisfaction Guarantee ⁹ and Data Workout ¹⁰										

- Telstra 10 selected countries: Canada, China, Hong Kong, India, Malaysia, New Zealand, Singapore, South Korea, UK and USA.
- Offered: Six Month Apple Music membership, Data-free streaming on Apple Music, and one (two for \$95+ plans) new release rental for Bigpond Movies in the first month of registering.
- Unlimited calls and text with 1.5GB data – for Zones 1,2 and 3 only.
- Optus selected countries: Austria, Bangladesh, Cambodia, Canada, Chile, China, Croatia, France, Germany, Greece, Hong Kong, Hungary, Indonesia, India, Ireland, Italy, Japan, Malaysia, Netherlands, New Zealand, Pakistan, Philippines, Poland, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey, United Kingdom, USA and Vietnam.
- International roaming data, 1GB on \$130 & 1.5GB on \$160 plan, per month for use in zone 1 countries.
- Vodafone Bonus Data ends 9 May 2017.
- Vodafone IDD selected countries. <http://www.vodafone.com.au/personal/plans/international-calls>.
- 300 standard international minutes to selected countries & 1000 standard international minutes to our Super 1000 Countries; Plus 8,000 Qantas Points on \$80 recharge, 10,000 Qantas Points on \$100 recharge and 15,000 Qantas on \$120 recharge. Qantas Points are an online only offer.
- Cancel within first 30 days if the network is unsatisfactory.
- ULTD data for first month with no excess charges until 30 Jun 2017.
- Bonus data offer ends 4 June 2017.
- Data free music streaming for the following services only – Google Play Music, iHeart Radio, Pandora & Spotify.
- Subscription included at no extra charge. Available on \$85+ plans.
- Includes Netflix, Stan, ABC iView, ABC Kids iView & ABC Me.
- \$5 Roaming available in over 50 countries for up to 90 days in any calendar year.
- Bonus data offer ends 3 July 2017.
- Free Wi-Fi offer until 27 March 2018 for all plans and watch live sport data free (AFL, NRL & Netball).
- On Microsoft OneDrive.

Competition on price and value is also occurring in relation to device pricing for MRO packages that advertise both the plan and device price per month.

For example, Telstra's current “Go Mobile Swap” offer is a leasing arrangement that allows customers to save up to \$10 per month by reducing the device price component of the plan.²³ Optus released a similar lease plan in May 2017 (“My Plan Flex”) to compete with the prices under Telstra's leasing offers.

As outlined further in section 2.5.2, in regional and rural areas, Australians are benefiting from vigorous price competition in the national market through nationally uniform pricing, which ensures they pay the

²³ Telstra, *Go Mobile Lease Plan*, available at: <https://www.telstra.com.au/mobile-phones/go-mobile-swap#!/filter/brand/os/features/isLeasePlan/plan/s/sort/featured> (accessed 19 May 2017).



same as metropolitan customers despite the higher costs of deploying mobile network infrastructure in regional and rural areas.

2.4. Entry of a fourth MNO demonstrates effective competition and the competitive dynamics in the retail and wholesale markets

TPG's announcement that it intends to enter the Australian mobile market and roll out a network providing 80 per cent population coverage demonstrates there is effective competition in the retail market. In announcing its successful spectrum bid, TPG said it faced only limited barriers to entry because "TPG has most of the essential components of a mobile network operator already in place", including a large national dark fibre network and a portfolio of spectrum holdings (including 700 MHz, 2.5 GHz and 1,800 MHz) which TPG claims will support its planned network.²⁴ Further TPG has stated that it will "enjoy numerous 'new entrant advantages', including being able to deploy current advanced technology, the rollout of fewer sites, and not needing to support legacy equipment (for 2G/3G networks)".²⁵

TPG's strategy to achieve 80 per cent Australian population coverage, focusing on providing a low-cost and technologically advanced product to a predominantly metropolitan customer base,²⁶ also shows TPG believes it can compete effectively without extensive regional coverage. TPG's strategy is consistent with Andrew Bailey's observation that there are numerous strategies available to MNOs to compete, including "[a]iming to be best-in-class in terms of network speed, metro capacity or metro coverage".²⁷

Professor Yarrow also observes:²⁸

For competing MNOs, then, there is an obvious counter-strategy to Telstra's lead in national coverage: it is to offset the... extent of coverage... arising from Telstra's coverage advantage by investing to improve network availability in those areas that they do cover, i.e. improving... the depth of coverage... There is therefore nothing to suggest that equalisation of the 'extent' of coverage is essential for effective competition.

TPG is likely to be a strong competitor to the three existing MNOs, delivering positive outcomes for customers. It has significant brand recognition from its fixed-line broadband subscriber base, has announced its intention to bundle fixed and mobile services, and has "experience leveraging [a] low cost model to take market share through aggressive pricing".²⁹ As noted in the ACCC's Draft Decision, the entry of TPG into the Australian mobile market is also likely to increase infrastructure-based competition.³⁰

The benefits of enhanced competition as a result of TPG's entry and aggressive pricing will flow through to Australians in regional and rural areas as MNOs continue to compete in a national market.

In relation to the wholesale market, the ACCC's Draft Decision is correct in its assessment that TPG should be expected to be able to commercially negotiate a roaming agreement for its targeted 80 per

²⁴ TPG Telecom, *700 MHz Spectrum Auction Success and Entitlement Offer*, 12 April 2017, p 5, available at: https://www.tpg.com.au/about/pdfs/TPG_700MHz_Spectrum%20Acquisition_Investor_Presentation.pdf (accessed 18 May 2017) (TPG Investor Presentation).

²⁵ TPG Investor Presentation, p 5.

²⁶ TPG Investor Presentation, pp 5, 7.

²⁷ Report of Andrew Bailey, s 6.

²⁸ Third Report of George Yarrow, [26].

²⁹ TPG Investor Presentation, p 8.

³⁰ Macquarie Research evaluated the likely impact of TPG's entry on market shares and industry average revenues per user (ARPU) and estimated that TPG's entry would drive a \$662 million reduction in Telstra's Mobiles and Group EBITDA by FY24 as a result of revenue share loss and increased price competition more broadly. See: Macquarie Research, *Telstra Corporation – TPG's entry hits where it hurts*, 12 April 2017, available at: <https://www.macquarieresearch.com/ideas/api/static/file/publications/7318229/TLS130417xe270484.pdf?f=DP> (accessed 30 May 2017).



cent network. TPG will be able to negotiate with Vodafone, Optus and Telstra. TPG has an existing MVNO agreement with Vodafone, which provides TPG with the means to build a mobile customer base while deploying its own network. Telstra would welcome the opportunity to negotiate a commercial roaming solution with TPG. The expected competitive rivalry between the three MNOs to win TPG's roaming business means that declaration is not necessary to facilitate TPG's entry as the fourth MNO (see section 4.3).

2.5. Australians in regional and rural areas are benefiting from effective competition in the retail market

The ACCC has expressed a view that competition is “less effective” in parts of regional and rural Australia as Telstra's broader geographic coverage affords Telstra an advantage in competing for customers who value wide geographic coverage. Telstra agrees that it has gained a competitive coverage advantage as a result of its strategic decisions to invest in mobile infrastructure in regional and rural Australia. However, Telstra considers this is not an indication of less effective competition or of structural problems in the market.

2.5.1. Equal geographic coverage is not necessary to compete effectively for regional and rural customers

In the ACCC's Draft Decision, the ACCC accepted that MNOs can compete for customers in regional areas, for example by building their networks in more populous regional centres and their surrounds. The ACCC recognised that Telstra's higher market share in regional and rural Australia is an expected outcome of the fact that Telstra has extended its network further into more sparsely populated areas of Australia. However, where other MNOs have built their network (such as in Bourke, Broken Hill and Dubbo) they are able to compete effectively with Telstra in those areas.

Set out below are two further examples, which demonstrate that equal geographic coverage is not necessary to compete effectively for regional and rural customers. These examples (and the examples cited in the ACCC's Draft Decision) illustrate:

- Optus and Vodafone are able to effectively compete against Telstra in those areas of regional and rural Australia where they have deployed network without having to provide matching coverage with Telstra across the whole of regional and rural Australia; and
- MNOs are able to compete against each other in areas of regional and rural Australia although their coverage can differ across those areas. Even where Telstra has the better coverage across an area, if the other MNOs offer competing (but not necessarily equal) coverage, they can attract customers who are willing to make a price-coverage trade-off.

In and around Coffs Harbour, all three MNOs have built mobile infrastructure to varying degrees. Figure 7 shows Optus claims to have the most contiguous coverage in the region, followed by Telstra and then Vodafone. Vodafone claims to only offer indoor coverage in a relatively small part of the area, mostly along the coast, but still claims good or limited outdoor coverage throughout the region. In terms of retail presence, Telstra and Optus both have three stores across the Coffs Harbour / Grafton region, while Vodafone does not have any stores.

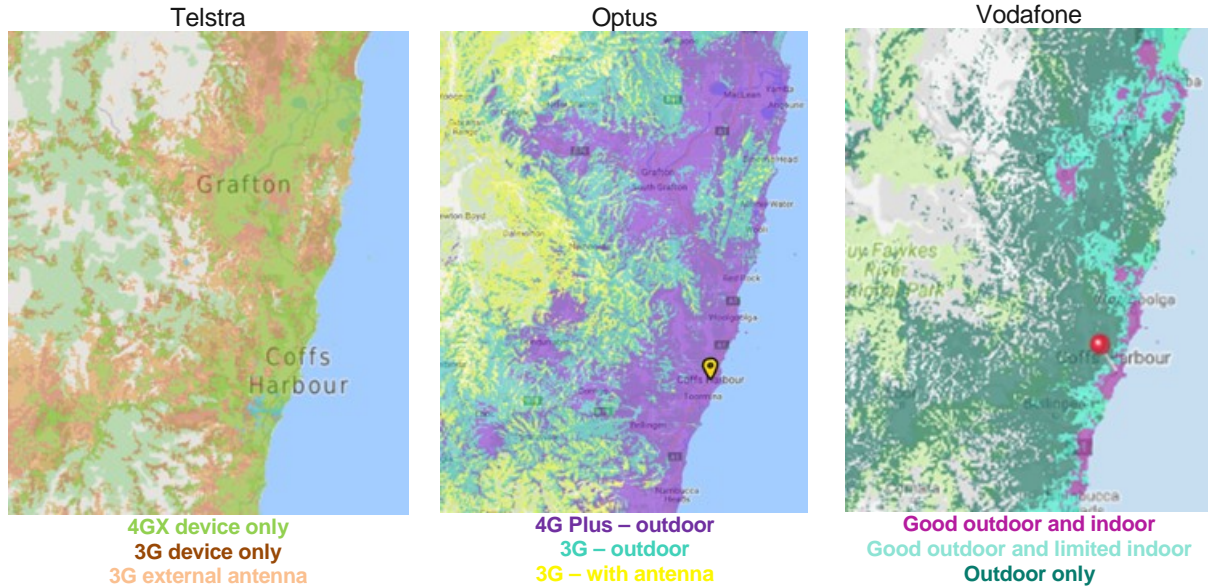
[REDACTED]

[REDACTED] This data supports the ACCC's view that MNOs can compete effectively for customers in regional areas with varying levels of coverage.

[REDACTED]



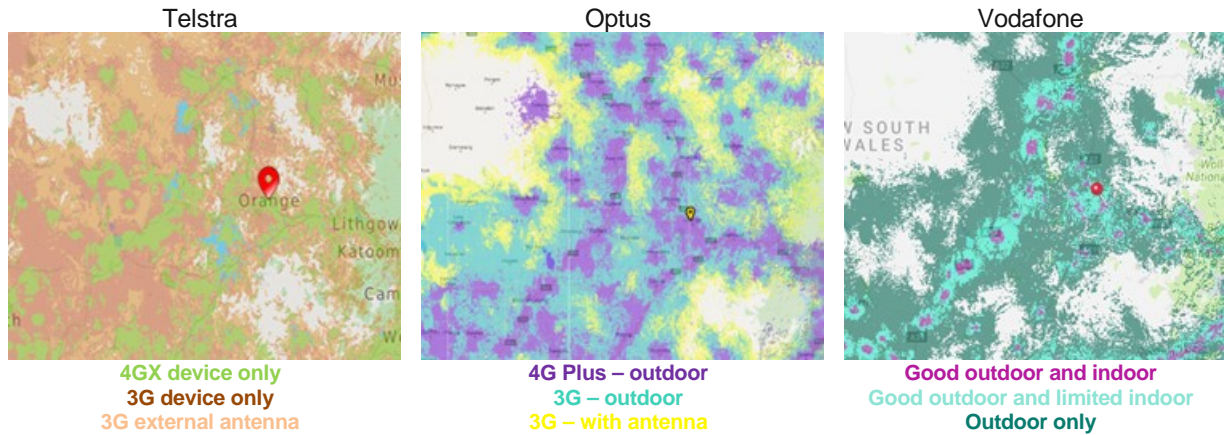
Figure 7: Telstra, Optus and Vodafone's coverage in Coffs Harbour and surrounding areas



Source: Coverage maps on MNO websites

All three MNOs also have mobile coverage in and around Orange. Figure 8 shows Telstra and Optus appear to have similar coverage profiles while Vodafone has more limited coverage. Telstra's market share of [REDACTED] is more typical of its market share in metropolitan areas than regional Australia.

Figure 8: Telstra, Optus and Vodafone's coverage in Orange and surrounding areas



Source: Coverage maps on MNO websites. Note: marker placed at Orange, NSW.

[REDACTED]



2.5.2. Nationally uniform pricing means regional and rural Australians get low metropolitan prices

The ACCC's Draft Decision is right to identify the fundamental importance and value of nationally uniform pricing to customers in regional and rural Australia. Nationally uniform pricing ensures that, despite the costs of mobile networks being substantially higher in regional and rural Australia than in metropolitan areas,³⁴ regional and rural customers enjoy the same benefits of competition as customers in metropolitan areas – including lower prices.

However, Telstra disagrees with the ACCC's observation that price-sensitive regional and rural customers might be missing out, for several reasons.

First, as the examples of competitive coverage and market share in and around Coffs Harbour and Orange in section 2.5.1 show, customers in regional and rural Australia are willing to make a price-coverage trade-off and do not require coverage across the entire Telstra network. If incentives for facilities-based competition are preserved, more customers in regional and rural Australia can be expected to have a choice between the different coverage-price propositions offered by the MNOs.

Second, there are low-cost options for price sensitive customers in regional and rural Australia who require high quality and extensive network coverage, offered by Telstra MVNOs and Boost.

[REDACTED]

MVNOs on the Telstra network provide coverage to 98.8 per cent of the Australian population, 0.3 per cent more than Optus.³⁵ Figure 9 shows the customer base of Telstra's MVNOs has grown significantly from [REDACTED]. Recent market data from Worldpanel ComTech shows Aldi, a Telstra MVNO that entered the market in 2013, had the biggest market share increase across the mobile market over the 12 months to March 2017, increasing from 1.8 to 2.7 per cent. The sustained growth of Telstra's MVNOs indicates they are increasingly becoming significant competitors in the retail market, including for regional and rural customers.³⁶

³⁴ Extensive evidence of the costs of deploying mobile infrastructure in regional and rural Australia was provided in Telstra's Initial Submission and the statement of Robert Joice. See: Telstra's Initial Submission, s 2.3.2; Statement of Robert John Joice dated 1 December 2016, s 5 (**Statement of Robert Joice**).

³⁵ Optus coverage of 98.5 per cent based on ACCC Draft Decision, p 30.

³⁶ Communications Day, *Telstra, Optus grow post-paid mobile shares as MVNOs eat at pre-paid sector: Kantar*, 18 May 2017.



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In addition to Telstra's MVNOs, Boost currently advertises pre-paid services using the same coverage footprint as Telstra – 99.3 per cent population coverage. Boost is currently running a "More Everything" campaign offering "more coverage on the Telstra Mobile Network" (Figure 10).

[REDACTED]

It is clear that price-sensitive customers in regional and rural Australia are increasingly aware of the choice offered by the Boost brand:

- [REDACTED]
- [REDACTED]
- [REDACTED]

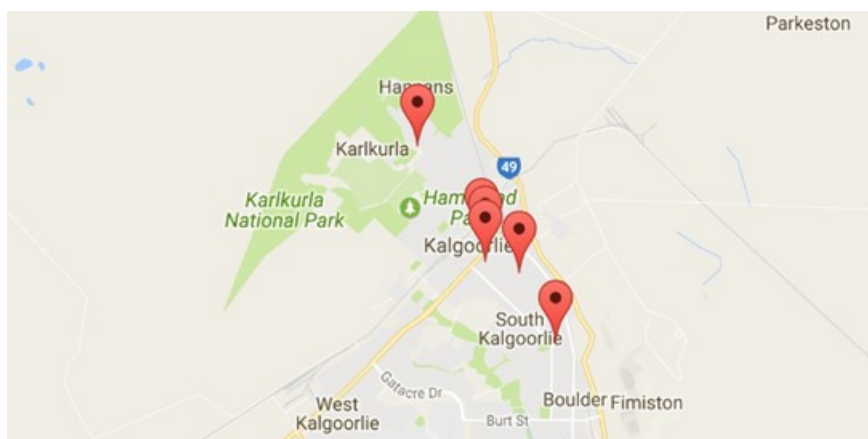
[REDACTED]

- Boost is available at all Telstra partner channel resellers to stock (if they choose to) alongside Telstra pre-paid services across metropolitan, regional and rural Australia.³⁸ Telstra's partner channel reseller network includes Australia Post Offices, supermarkets such as Coles and Woolworths, discount retailers such as Target, K-Mart and Big W, consumer electronics outlets including JB Hi Fi, petrol and convenience outlets including 7 Eleven and many other smaller outlets. The extent of Boost's retail presence across Australia, as well as in regional and rural areas, is available on Boost's website.³⁹ Figure 11 shows Boost's retail presence in Kalgoorlie where six retailers stock Boost pre-paid services, including Australia Post, Target, K-Mart, Coles, Coles Express and Woolworths. Boost's pre-paid services can also be purchased online, which means that customers can have a Boost SIM delivered to their door, including in areas where Boost does not have a retail presence.

Figure 10: Boost advertising on the basis of coverage – "More Everything" campaign



Figure 11: Boost's retail presence in Kalgoorlie



Source: Boost, *Find a retailer*, available at: <http://boost.com.au/find-a-store/> (accessed 29 May 2017).

³⁸ Whether a store chooses to stock Boost prepaid sims alongside Telstra pre-paid services is the choice of each reseller.

³⁹ Boost, *Find a retailer*, available at: <http://boost.com.au/find-a-store/> (accessed 29 May 2017).



03 The relevant service being considered for declaration

The Draft Decision describes the mobile roaming service being considered for declaration as follows:⁴⁰

Mobile roaming services allow mobile subscribers of one network to use their mobile phones for calls, text messages and data services on another network in Australia when outside the coverage area of the network to which they subscribe. A mobile roaming service essentially allows a mobile network operator (MNO) to provide mobile services outside of its network footprint.

As the ACCC's Discussion Paper indicated, if the ACCC was satisfied that it was appropriate to declare such a service, it would be necessary for the ACCC to make a choice as to the precise scope of the declared service.⁴¹

Vodafone has proposed a service description for roaming limited to areas where fewer than three MNOs have coverage,⁴² and TPG has sought declaration in areas where three or fewer MNOs have coverage.⁴³

Telstra agrees with the approach in the Draft Decision of testing, in effect, whether declaration of the roaming service described by the ACCC would satisfy the statutory criteria for declaration. The Draft Decision has appropriately considered the state of competition and the criteria relevant to declaration of a mobile roaming service in, variously, Telstra-only areas, Telstra-Optus coverage areas and metropolitan areas.

This approach allows the ACCC to assess in substance any possible iteration of a declared roaming service description, including the different roaming services proposed by Vodafone and TPG.

The following sections address the ACCC's assessment of the LTIE criteria which lead the ACCC to the conclusion that there is no mobile roaming service description which would promote the LTIE to an extent that would justify declaration.

⁴⁰ ACCC Draft Decision, s 3.1.

⁴¹ ACCC Discussion Paper, s 5.1.

⁴² Vodafone Hutchison Australia, *Submission in response to ACCC's domestic mobile roaming declaration inquiry*, 5 December 2016, Part A, s 7(a) and Part B, s 5.

⁴³ TPG, *Submission in response to ACCC's domestic mobile roaming declaration inquiry discussion paper*, 2 December 2016, [24].



04 Promotion of competition in the relevant markets

The ACCC's Draft Decision is correct in its assessment that regulation to increase “choice” for regional and rural customers will come at the disproportionate risk that those customers will be worse off.

Declaring roaming will do no more than give customers a “choice” in single MNO areas of brand and retailer, but they will be getting the same network and coverage that is already available to them. The cost of this “choice” is:

- The elimination of coverage as a key dimension of competition;
- Either higher prices across the board or the end of nationally uniform prices, which will mean higher prices for regional and rural customers; and
- Disincentives for future investment in improved network quality and expanded coverage in regional and rural areas.

These effects will have a far greater impact on Australians living and working in regional and rural areas because they have a greater need for expansions and enhancements in regional mobile infrastructure than metropolitan customers.

In this section, Telstra addresses the ACCC's assessment in the Draft Decision that declaration would not sufficiently promote competition in the retail market.

4.1. Declaration will eliminate an important dimension of competition in the retail market

The ACCC's Draft Decision expresses a view that declaring roaming may promote competition for mobile services in regional and rural Australia by increasing the “choice” of brand and retailer for customers. However, it cannot be assumed that more choice of this nature necessarily means an increase in competition – or at least competition which would promote the LTIE.

The ACCC has recognised that declaration will remove geographic coverage as a factor over which MNOs currently differentiate their services. The impact of removing coverage-based competition cannot be isolated from the mix of competitive factors that has delivered one of the world's most competitive mobile markets. Declaration would adversely affect competition in the retail market because the number of dimensions on which MNOs can compete will be reduced by equalising coverage. As Professor Yarrow comments:⁴⁴

[T]he whole concept of competition is based on the notion that businesses strive to differentiate themselves from competitors in one way or another, because rewards are linked to their ability to do so. The distinguishing characteristic of effective competition, as it is generally understood, is simply that this process of differentiation aligns the rewards/payoffs to businesses with advancements in the interests of consumers...

Problems occur (competition becomes ineffective) when this alignment is weak, non-existent or even negative (i.e. businesses benefit by doing things that are bad for consumers) and one way in which this can happen is when the dimensionality of competition is reduced, particularly by the loss of vertical/quality dimensions.

In the absence of declaration, the current competitive conditions will continue to deliver incremental improvements to network coverage and quality and, more significantly, will drive the race for future generations of mobile technology. In addition to direct coverage competition, as MNOs continue to

⁴⁴ Third Report of George Yarrow, [17]-[18].



differentiate themselves, investments by Optus, Vodafone and TPG in non-coverage advantages may trigger investments by Telstra to at least maintain, but also to potentially increase, its coverage and network quality advantage. As Telstra set out in its Initial Submission, the race for coverage has seen successive generations of mobile technology expanding coverage and Australia reaching world leading coverage levels.

The submissions received from a large number of regional and rural organisations and customers provide good evidence of what regional and rural communities consider to be in their long term interests. They value improved network coverage and reliability over having a choice of retailer. Their view is that using regulation to create choice of retailer would be detrimental in circumstances where that regulation would result in disincentives for MNOs to build more and better coverage in regional and rural Australia.

4.2. Customers will likely face higher prices if roaming is declared

The ACCC's Draft Decision correctly finds that declaration would likely lead to worse outcomes for customers in terms of retail pricing than the market would deliver without declaration as a result of either:

- An increase in average nationally uniform prices as access seekers will raise prices to recover the costs of roaming and to reflect the increased value of broader geographic coverage; or
- A move away from nationally uniform pricing, which would lead to higher prices for the use of mobile services in regional and rural Australia.

Telstra agrees that declaring roaming will likely result in access seekers increasing their nationally uniform prices (assuming this pricing structure does not unravel with declared roaming). Access seekers that have a lower cost base because of strategic investment decisions not to focus investment in regional and rural Australia will likely need to increase their prices to recover the costs of roaming. In addition, access seekers are likely to raise prices as they will be able to offer a higher value product through increasing the geographic reach of their coverage through roaming.

Vodafone's expert, Mr Feasey, acknowledges that, following regulation, mobile prices may be higher than current nationally uniform prices. Mr Feasey justifies any likely increases in retail prices on the basis that the increase "ought to be because [customers] obtain value".⁴⁵ Indeed, an increase in Vodafone's average prices if roaming is declared would be consistent with Vodafone's apparent current strategy to increase ARPU's by providing a higher quality service to their customers.⁴⁶

A key benefit of the multi-dimensional competition in the retail market is that it is delivering a diverse range of competing products that satisfy the diverse demands of customers. Equalising coverage, and eliminating a key dimension of competitive differentiation between the three MNOs, will undeniably have consequences for price competition to the detriment of customers. As Professor Yarrow explains:⁴⁷

Declaration could be expected not only to reduce competition to sustain and extend coverage, but also to have adverse implications for price competition associated with coverage differentials. Price competition is the most effective method of discovering the value that consumers place on different product/service characteristics, including coverage. Absent the possibility of sustainable differences in coverage, there is little or no motivation for businesses to seek to discover its value to consumers. Hence this dimension of price competition becomes largely redundant and the general effectiveness of price competition is thereby reduced.

⁴⁵ Report of Richard Feasey dated 1 December 2016, [82] (**First Report of Richard Feasey**).

⁴⁶ Vodafone Media Release, *VHA growth continues in 2016 ahead of fixed broadband launch*, 23 February 2017, available at: <http://www.vodafone.com.au/media/vha-2016-results/> (accessed 24 May 2017); Vodafone, *VHA solid growth trends continue*, 29 July 2016, available at: <http://www.vodafone.com.au/media/vha-solid-growth-trends-continue/> (accessed 24 May 2017).

⁴⁷ Third Report of George Yarrow, [4].



Further, as recognised by the ACCC, declaring roaming may not lead to Telstra lowering its prices to any significant extent given that Telstra's higher network costs associated with its extensive regional network and the perception of Telstra's superior network quality are unlikely to be impacted by declaration. Therefore, as Professor Yarrow explains, any increase in average prices as a result of declaration would be concentrated on access seekers' customers.⁴⁸ These are customers who have made a choice in a competitive market to opt for a lower-priced product with a lesser degree of geographic coverage. Declaration would in effect deny this choice to those customers in exchange for higher average nationally uniform prices.

These pressures may trigger a move away from nationally uniform pricing. Vodafone acknowledged they will explore a geographically de-averaged pricing structure through the introduction of an *"optional premium coverage product"*.⁴⁹

The ACCC rightly recognises that this would be a significant change from current pricing behaviour. It would have significant consequences for the price of mobile services in regional and rural Australia. The move to geographically de-averaged pricing would necessarily lead to higher prices for using mobile services in regional and rural Australia and regional and rural Australians being forced onto the higher-priced "premium coverage" plans.

4.3. Declaration is not necessary to facilitate the entry of new MNOs

Telstra agrees with the ACCC that declaration of mobile roaming in regional and rural Australia is not necessary to facilitate the entry of a fourth MNO.

As outlined in section 2.4, TPG recently announced it will build a mobile network and appears committed to entry irrespective of whether mobile roaming is declared, particularly following its significant investment of \$1.26 billion in low-band 700 MHz spectrum.⁵⁰

During the period that TPG is building its network, it will be well placed to negotiate a commercial roaming agreement to facilitate its entry. The ACCC recognised in the Draft Decision that roaming in the more densely populated areas of Australia would be the most effective mechanism for a new entrant to build a customer base while progressively rolling out its network. This would support TPG's strategy to build a network with 80 per cent population coverage. Currently, all three MNOs have coverage in these more densely populated areas and therefore, as recognised by the ACCC, would have the incentive to compete to supply roaming services to TPG. Further, because TPG has an existing MVNO agreement with Vodafone it has the option of continuing to operate as an MVNO while building its own mobile network infrastructure.

Telstra's experience accords with the ACCC's view that, in areas served by at least two MNOs, competition in the wholesale market for mobile roaming services is effective. Given the rivalry between Optus and Telstra in relation to the supply of roaming services to Vodafone at the boundaries of Vodafone's coverage footprint, Telstra expects that TPG will be able to secure a commercial roaming agreement to build its customer base and facilitate its network roll out. Telstra is keen to win this business if Telstra's commercial roaming offer aligns with TPG's strategic objectives.

Telstra agrees with the ACCC's Draft Decision that the circumstances under which roaming has been regulated in other jurisdictions differ from those facing the Australian market and, when intended to facilitate new entry, those roaming requirements also carefully consider the impact on investment incentives. The international experience in relation to use of regulated roaming as an entry mechanism shows the following:

⁴⁸ Third Report of George Yarrow, [5].

⁴⁹ Vodafone Supplementary Submission, Part A, s 1.4.3.

⁵⁰ TPG Investor Presentation.



- National roaming to assist new entry is usually implemented through spectrum licence conditions,⁵¹ and not access regulation. “Baking” roaming into the spectrum auction process allows potential access providers to factor roaming into their business cases and to price their bids for spectrum accordingly.
- Many jurisdictions which regulated roaming in 3G spectrum auctions to assist new entry (by providing for roaming on 2G) decided not to regulate roaming in the more recent 4G spectrum auctions (ie, no requirement to provide 3G roaming).⁵² For example, Ofcom in the UK decided that regulating roaming on 3G networks would not be proportionate or objectively justified and that new entrants should commercially negotiate roaming.⁵³
- Where regulated roaming has been used to assist new entry, the roaming price was usually to be commercially negotiated.⁵⁴
- Regulation of mobile roaming has tended to occur in markets which have fewer existing nationwide providers than the Australian market currently has, because of concerns about the ability of the new entrant to commercially negotiate roaming. For example, in the UK, 2G roaming was applied when there were only two existing MNOs (O2 and Vodafone) but not when there were three or four MNOs. Roaming was regulated in New Zealand because technology choices limited the new entrant to one potential commercial roaming provider.

4.4. Technology convergence and evolution allows an MNO to deliver integrated solutions beyond their coverage footprint without declared roaming

The ability to compete in new services such as IoT and M2M does not depend on declaration of mobile roaming.

First, new technological developments such as IoT and M2M may in fact improve or create a business case for investment in mobile infrastructure in regional and rural Australia. A US expert on IoT has said:⁵⁵

Cellular-based IoT applications are experiencing a drastic growth backed up by the large network operators. Current studies forecast the cellular IoT to be 1000 times more profitable than mobile data and as lucrative for operators as Short Messaging Service (SMS). This is an attractive new market for cellular operators, which are currently dealing with a heavily competitive market and declining revenues. Consequently, applications are among the common denominator of some of the largest investments in mobile and cellular technology innovation.

Vodafone's self-professed world leadership in M2M services means that it, ahead of other MNOs, may well have the technology, experience and scale to build a business case for rollout to new areas.⁵⁶ In an IoT and M2M world, demand is not constrained to places where humans live. With its global assets, it is reasonable to suppose that Vodafone might have a unique case for new rollout, providing pro-competitive reasons for adding to the coverage currently enjoyed in regional and rural areas.

Pivotel has also recognised the business case for deploying mobile infrastructure in regional and rural Australia to support industrial IoT services, including for agricultural and mining activities. Pivotel intends

⁵¹ For example, in the UK, Ireland, Hong Kong, France and Italy.

⁵² For example, in the UK, Ireland and Hong Kong.

⁵³ Ofcom, *National Roaming: a further consultation*, 22 July 2004.

⁵⁴ For example, in New Zealand, Norway, Hong Kong, Italy and Denmark.

⁵⁵ Roger Piqueras Jover, AT&T Security Research Centre, *Security and impact of the IoT on LTE mobile networks*, 20 July 2015, p 1, available at: http://www.ee.columbia.edu/~roger/LTE_IoT.pdf (accessed 1 June 2017).

⁵⁶ Vodafone Supplementary Submission, Part A, s 1.1.3.



to build new 4G LTE mobile infrastructure which, together with its satellite connectivity, can support an integrated IoT solution.⁵⁷

Second, with technological developments, there is an emerging convergence between mobile and other technologies which will allow them to deliver cross-network products such as IoT and M2M applications. While MNOs continue to push the outer boundaries of their mobile networks, there is also the opportunity for converging technologies to deliver integrated solutions beyond coverage footprints.

For example, Wi-Fi calling, also known as Voice over Wi-Fi (**VoWiFi**), is an integrated mobile-Wi-Fi product which allows for the seamless handover of calls between a customer's mobile network and a Wi-Fi connection. This allows customers to make and receive calls where there is limited or no mobile coverage but an accessible Wi-Fi service. Telstra launched Wi-Fi calling in October 2016, followed closely by Optus in January 2017.⁵⁸ It has been reported that Vodafone intends to launch Wi-Fi calling in Australia by the fourth quarter of 2017.⁵⁹ This would roughly align with the launch of Vodafone's fixed broadband service via the national broadband network (**NBN**) to complement its mobile network, scheduled for before the end of 2017.⁶⁰ Investment in this technology by all three MNOs demonstrates the recognised importance of converging technologies in delivering in-building coverage solutions to customers or small local area networks beyond the boundaries of MNOs' coverage footprints.

As another example, an integrated mobile/satellite service will facilitate the deployment of IoT solutions to customers with remote connectivity requirements. Vodafone is already pursuing opportunities that will allow it to provide international satellite connectivity for IoT where mobile connectivity is unavailable.⁶¹ For example, in October 2016, Vodafone announced it had entered into a roaming agreement with Inmarsat, a global satellite operator, to provide an integrated mobile/satellite IoT service.⁶² Vodafone Director of IoT, Ivo Rook, stated:⁶³

Success in IoT demands a mix of different technologies for different applications. By adding satellite connectivity from Inmarsat to the Vodafone portfolio we continue to deliver on our strategy to lead in managed IoT services. The IoT is transforming businesses in every sector and I am delighted we are able to support more of our customers in taking advantage of all that this technology has to offer. (Emphasis added).

⁵⁷ Pivotal, Submission to the ACCC's domestic roaming declaration inquiry, 25 November 2016, p 13.

⁵⁸ Telstra Exchange, *Leading the way to provide brilliant voice and video calling experiences*, 9 December 2016, available at: <https://exchange.telstra.com.au/leading-the-way-to-provide-brilliant-voice-and-video-calling-experiences/> (accessed 24 May 2017); Optus Media Release, *Optus Launches Native Wi-Fi Calling (Voice over Wi-Fi)*, 26 January 2017, available at: <https://media.optus.com.au/media-releases/2017/optus-launches-native-wifi-calling-voice-over-wifi/> (accessed 24 May 2017).

⁵⁹ Communications Day, *Wi-Fi calling goes mainstream at telcos*, 11 May 2017.

⁶⁰ Vodafone Media Release, *Vodafone to launch fixed broadband services in 2017*, 19 October 2016, available at: <http://www.vodafone.com.au/media/vodafone-launch-fixed-broadband-2017/> (accessed 22 May 2017).

⁶¹ Vodafone Media Release, *Vodafone IoT satellite service*, available at: <http://www.vodafone.com/business/iot/vodafone-iot-satellite-service> (accessed 22 May 2017).

⁶² Vodafone Media Release, *Vodafone signs roaming agreement with Inmarsat for internet of things communications*, 20 October 2016, available at: <http://www.vodafone.com/business/press-release/vodafone-signs-roaming-agreement-with-inmarsat-for-internet-of-things-communications-2016-10-20> (accessed 24 May 2017).

⁶³ Inmarsat, *Inmarsat to provide satellite connectivity to Vodafone's IoT platform*, 20 October 2016, available at: <http://www.inmarsat.com/news/inmarsat-provide-satellite-connectivity-vodafone-iot-platform/> (accessed 24 May 2017).



05 The efficient use of, and investment in, infrastructure

In this section, Telstra addresses why the ACCC's Draft Decision is right to conclude that there is a risk declaration will distort incentives to invest in improving the extent and quality of coverage in regional and rural areas.

5.1. What is at stake for regional and rural communities

If roaming is declared the investment at risk is investment in new coverage and capabilities in regional and rural areas that will promote infrastructure-based competition in the retail market, competition in the wholesale market and also innovation in downstream applications and services.

While investment in 3G technology has delivered significant benefits for regional and rural users, the biggest gains in innovation for regional and rural communities lie ahead with the upgrade of 3G networks to 4G and the deployment of 5G, the proposed next telecommunications standard. These newer generations of technology deliver higher speeds and bandwidth compared to 3G, but as importantly, they will have substantially improved network performance required to support use of mobile networks to deliver innovative services in regional and rural Australia.

While 4G technology is a substantial step up from 3G technology, the deployment of 5G technology promises far greater improvements in latency, network capacity, speed and adaptability and the quality of customer applications:

- **Latency:** 5G will deliver latency times of up to 1/30th of current ping times. The lower latency architecture of 5G technology will improve the performance of applications that rely on real-time connection between devices.
- **Network capacity:** 5G technology will have improved spectrum efficiency, using up to 25 times the spectrum of 4G technology. This means that 5G will be able to handle significant capacity density and will deliver up to 100 times the traffic capacity of 4G technology.
- **Speed:** 5G speeds will be typically 10 times that of 4G speeds, with less speed variation. Beam forming will also improve the signal quality across mobile cells.

As a result, investment in new mobile technology will also improve the performance of a range of services and applications in health, education and agriculture. Table 5 provides a comparison of usability and performance of certain applications on 3G, 4G and 5G. For example, while video conferencing is not supported by 3G, 4G can provide a reasonable level of quality for video calling, and 5G will enable enterprise quality video conferencing. While 4G will allow some video-based health applications, such as nurses remotely supervising carers administering medication, 5G will support remote, interactive diagnosis and even some treatment by doctors. In education, 4G will support delivery of video-based lessons, while 5G will allow a full interactive class experience linking remotely located students and teachers.

Table 5: Comparison of usability and performance of applications on 3G, 4G and 5G

Customer application	Performance on 3G	Performance on 4G	Performance on 5G
Video streaming	Limited to lower resolution	Good performance for SD and HD video	Excellent performance due to better latency, download and upload speeds
Video conferencing	Poor performance	Good performance (suitable for FaceTime and	Excellent performance (teleconferencing available) due to better



Customer application	Performance on 3G	Performance on 4G	Performance on 5G
		Skype, etc.)	latency, download and upload speeds
Agricultural applications including sensor and monitoring equipment	Low performance, as 3G is not optimised for these types of applications in terms of cost and battery life	Compatible with narrowband IoT installations that allow for low data use and therefore low price and battery	Compatible as with 4G, with potential for improved performance with lower latency and the ability to deal with a number of connected devices
Transfer of large medical files in real time	Incompatible	Moderate to good performance	Excellent performance
Nurses remotely supervising patients taking medication	Incompatible	Good performance	Excellent performance due to better latency, download and upload speeds
Remote diagnostics	Incompatible	Incompatible to moderate performance (depending on the type of diagnostic and the need for real time information)	Excellent performance for real time interaction and high resolution due to better latency, download and upload speeds
Education by video-conferencing and remote lectures	Poor performance	Moderate to good performance	Excellent performance

5.2. Declaration will impact Telstra's incentives to invest in regional and rural Australia

Telstra agrees with the ACCC's assessment that continued investment in regional and rural Australia by Telstra and Optus in response to each other will be adversely impacted by declaration. However, Telstra considers the ACCC's Draft Decision underestimates the extent to which Telstra continues to be incentivised to maintain and expand its coverage advantage more broadly in regional and rural Australia assuming roaming is not declared.

Telstra understands the frustrations among some customers that there are still areas with no or patchy coverage in regional and rural Australia. However, declaring roaming is not the right solution for addressing these concerns. Section 6 sets out alternative regulatory and policy measures that may provide more appropriate solutions and ensure continued investment in improving network coverage and quality in regional and rural Australia.

5.2.1. Telstra's existing investment incentives

Telstra disagrees with the ACCC's assessment in the Draft Decision that Telstra currently has little incentive to invest further in Telstra-only areas or to expand its coverage footprint.

Absent declaration, Telstra's commitment is to keep investing to improve and expand its mobile network in regional and rural areas of Australia. Telstra has announced it will invest:

- \$350 million in new technology and regional base stations;
- Up to \$229 million to continue its work on the first two rounds of the Mobile Black Spot Program; and
- \$100 – \$200 million for new regional co-investment.



With co-investment, Telstra expects to see up to \$1 billion of investments to flow to small towns and regional centres across the country over the next five years to boost regional mobile coverage. This investment in regional and rural Australia would be uneconomical if mobile roaming is declared as it is contingent on Telstra's ability to derive indirect coverage advantage revenues.

Telstra believes the ACCC underestimates Telstra's investment incentives in the absence of declaration on three bases.

First, Telstra continues to have an incentive to maintain its lead in the coverage race. The ACCC has accepted that indirect revenues derived through competitive differentiation on the basis of network coverage drive investment in regional and rural areas. With the extent of coverage that has been achieved, further increments in population coverage will be smaller and more costly, but the same incentives remain for Telstra to continue expanding the boundaries of its coverage as Optus continues to narrow the coverage gap. Investments in improving network quality will also deliver incremental improvements in network coverage. For example, a 4G upgrade can also result in new coverage areas.

As Professor Yarrow observed:⁶⁴

It might nevertheless be argued that the value of this aspect of the competitive discovery process should be discounted because, even without equalisation, there is nothing much of value left to discover in the first place. That is, just as businesses supplying undifferentiated products already know that cross-price elasticities are high and don't need to experiment by changing prices, so it might be 'known' that extra coverage will not add much value because coverage is already very high and the differentials between the leading MNOs are already very low. Speaking roughly, this would be to say that competition to date has been so successful that it is now largely redundant and can be safely set aside.

... [S]uch an argument would neglect the points that (a) what is at issue is the value to a business... of an incremental advantage... and (b) that incremental advantages can increase as the competitive 'race' becomes tight. We see this effect in sporting competitions of all types: the winner or top dog is particularly heavily rewarded, irrespective of the margin of victory. In the current context, this leads naturally to questions concerning the contribution to a corporate 'brand value' of being able, truthfully, to advertise a business as being the 'national leader' in coverage.

Second, the ACCC's Draft Decision takes a static view of Telstra's coverage. MNOs are continually reassessing their coverage in response to shifting consumer demand and, increasingly, to support new products and applications. M2M and IoT are notable examples. Current coverage is largely configured around where people are concentrated because they are the main users of voice and data services. However, IoT devices, particularly in agricultural and rural applications, are often located in areas where humans are not (and as an alternative to humans making trips to check, for example, remote water levels or to visually track cattle). The rapid growth in IoT and the benefits it will deliver provides an opportunity to re-configure and extend coverage to support IoT applications in areas with patchy or no coverage.

MNOs will need to undertake fresh investment to accommodate IoT:⁶⁵

The rise of mobile devices is having a dramatic impact on mobile network operators, IoT will only exacerbate the data traffic problem, as MNOs must support far more data traffic than ever before... MNOs will be challenged to keep their infrastructure investment pace with the explosion of data traffic from IoT but it also represents new revenue opportunities.

⁶⁴ Third Report of George Yarrow, [38]-[39].

⁶⁵ Wired Magazine, *Why the Internet of Things will Disrupt Everything*, available at: <https://www.wired.com/insights/2014/07/internet-things-will-disrupt-everything/> (accessed 1 June 2017).



The ACCC stated that because Telstra has announced it will switch off its 3G network, Telstra will expand 4G coverage in order to maintain its overall coverage footprint. The ACCC should not assume that this expansion of 4G coverage will proceed if roaming is declared. The up to \$1 billion of investment and co-investment announced by Telstra, which includes further expansion of Telstra's 4G coverage beyond 99 per cent population coverage, is contingent upon regulatory settings that continue to support indirect revenues from investing in regional and rural Australia.

Further, 5G is more than an incremental step from 3G and 4G, and will involve a fundamental redesign and rebuild of the network, as well as substantial capital investment. Telstra began trialling 5G in Australia in September 2016.⁶⁷ The continued investment required to deliver new technologies to regional and rural Australia is tangible and foreseeable, and must be taken into account.

As Mike Wright explains in his statement:⁶⁸

Without the competitive advantage obtained through Telstra's ability to make coverage claims from these investments [in regional and rural sites], the business case for these investments simply falls away. Not only could this mean that the continued expansion of the 4G network to 99% may need to be reviewed, but it will also mean that entire rural communities will simply miss out on services or experience a degradation in coverage which is essential to the broader economic prosperity of those communities and regions.

It is my view that any decision to declare roaming would also limit the future rollout of new technologies such as IoT, LTE-B and 5G. Telstra currently has an incentive to, and does, invest in 5G trials with Ericsson, Intel and Qualcomm to prototype 5G enabled devices and test the technology. It is also actively involved with the 3GPP on 5G standards to gain support for features and longer cell ranges. A very different set of factors and economic analysis would be involved in decisions to invest in and optimise these technologies throughout rural Australia in the context of mandated roaming.

It is therefore my view that under roaming new features and new technology rollouts in rural Australia would inevitably be curtailed. Without a developed 4G foundation and continued investment, the introduction of any new 5G technology will not be economic.

5.3. Impact on Optus' investment incentives in regional and rural Australia

Telstra agrees that declaration will have a dampening effect on Optus' incentives to invest in quality network coverage, which will in turn eliminate the competitive coverage rivalry between Telstra and Optus.

It is clear that current competitive conditions are driving investment by Optus to expand its coverage footprint into and beyond Telstra-only areas. Optus is also improving its network quality in regional and rural Australia. For example, Optus recently announced it is committed to invest further in its mobile network over the next 12 months if roaming is not declared, which will go towards deepening its network capacity and coverage, particularly in regional Australia.⁶⁹

Optus is investing as part of a competitive race for network coverage and quality, which prompts further investment by Telstra in order to maintain or regain its competitive advantage. This competitive rivalry between Telstra and Optus as part of this race is delivering improvements in regional network quality and coverage. The competitive dynamics of entry by Optus into a Telstra-only area will also play out in neighbouring Telstra-only areas as Telstra will extend and deepen coverage in order to preserve Telstra's reputation for having a superior network.

⁶⁷ Mike Wright, Telstra Exchange, *Preparing for the arrival of 5G*, 3 August 2016, available at: <https://exchange.telstra.com.au/2016/08/03/preparing-for-the-arrival-of-5g/> (accessed 26 May 2017).

⁶⁸ Statement of Mike Wright, [268]-[270].

⁶⁹ Optus, Media Release, *Optus delivers a quarter of Revenue, EBITDA and Profit Growth*, 18 May 2017, available at: <https://media.optus.com.au/wp-content/uploads/2017/05/Q4-FY16-17-Optus-Media-Release.pdf> (accessed 22 May 2017).



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Declaration of mobile roaming would therefore have a dampening effect on Optus' incentives to invest in quality network coverage, and would also eliminate the competitive investment dynamic between Telstra and Optus. As the ACCC has recognised, this would deny customers the choice of the more diverse and differentiated range of products that would otherwise result through continued competitive investment. This would not be in the LTIE.

Andrew Bailey makes the following observations about the impact of declaration on investment incentives based on his experience in making investment decisions:⁷²

Telstra and Optus would both have a diminished ability to exploit their investments in regional coverage among regional and metro customers. These weaker returns would permanently reduce the capital efficiency of new regional capital investments. In such circumstances it is hard to expect any outcome other than a scaling back of regional coverage investments by Telstra and Optus.

[REDACTED]

[REDACTED]

Report of Andrew Bailey, s 7.



5.4. Impact on Vodafone's investment incentives

The ACCC's conclusion that declaration will not encourage Vodafone to invest in regional and rural Australia is correct for the following reasons.

First, Vodafone's assertion that declaration would encourage and incentivise Vodafone to invest in expanding its coverage footprint is not credible. The only reason for Vodafone to invest in areas subject to declaration would be if Vodafone believed that access price outlays would be higher than the cost of building its own coverage. The vast majority of areas where Telstra is the only MNO have very low traffic and depend on indirect revenues to be profitable. As declaration would remove geographic coverage as a differentiating feature of MNOs, those indirect revenues would be diminished and no incremental indirect revenues could be derived through investing in expanding coverage in regional and rural Australia. Therefore, any increased revenues that Vodafone may obtain if roaming is declared are not likely to justify incurring fixed network costs to build in regional and rural Australia, particularly if Vodafone is able to provide increased coverage at an incremental variable cost – a “*simple per minute roaming charge*” as Mr Bailey puts it.⁷³ It is therefore highly unlikely that declaration would encourage Vodafone to invest.

Second, while Vodafone's key economic expert, Richard Feasey, was not instructed to address Vodafone's investment incentives with declaration,⁷⁴ Mr Feasey has previously acknowledged the difficulty for regulators in setting access prices that preserve investment incentives in the context of the Canadian Radio-television and Telecommunications Commission inquiry into Wholesale Wireless Markets. Mr Feasey observed:⁷⁵

[There is] widespread recognition in the rest of the world that regulators are poorly placed to determine what efficient wholesale charges might be, that competition between providers of domestic roaming services can be relied upon to produce efficient prices and that imposing inappropriate charges will weaken further the incentives on the part of both access seekers and access providers to invest in their own facilities.

...

Although there are many studies and many views, the literature tends to suggest that wholesale access regulation will deter additional network investment by the regulated operator, both because regulation will often mean that the operator is forced to share the retail opportunities created by such investment with its retail rivals rather than capturing advantages for itself, and because of concerns that the regulator will set access prices ex post which may not allow investors to recover the risk adjusted costs of their network investments.

Regulators also worry that wholesale access regulation will deter investment by the access seekers. These firms are likely to invest more in lobbying the regulator to secure risk free access to the networks of others, and less on making risky network investments of their own.

Third, Vodafone's current footprint represents the outcome of investment decisions it has made about the network it needs for its target customer base. As Andrew Bailey states:⁷⁶

[Vodafone] has had the opportunity to develop a network that best gives it competitive traction. The network it has chosen targets lower spending mobile users. Now it appears to want to change its long-standing value proposition to its customers. Specifically, it seems to want to offer more premium

⁷³ Report of Andrew Bailey, s 7.

⁷⁴ First Report of Richard Feasey, [2].

⁷⁵ Richard Feasey, *The regulation of mobile wholesale markets in the rest of the world (and its relevance to the CRTC's enquiry into wholesale wireless markets in Canada)*, 15 May 2014, [15], [40]-[41].

⁷⁶ Report of Andrew Bailey, s 6.



network features like enhanced coverage. Surely the logical response is that it is free to spend its own capital to provide these additional features.

There are, of course, other value propositions that VHA could pursue that would not require extensive regional coverage. Aiming to be best-in-class in terms of network speed, metro capacity or metro coverage are all strategies that would build on the network presence that it has and be of considerable appeal to its metro customer base. There is no inevitable market logic about expanding geographic coverage.

5.5. Declaration will be unavoidably over-inclusive

While it is useful for analytical purposes to assess, as the Draft Decision does, the impact of declaring roaming on investment incentives separately by areas with one, two or three MNOs, it would not be possible to align the boundaries of a declared roaming service “on the ground” to these categories.

For network management purposes, cell sites are grouped together: in the case of 3G to form Location Areas (**LACs**) and in the case of 4G to form Tracking Areas (**TACs**). Telstra and Vodafone agree that roaming would have to be implemented on a LAC and TAC wide basis.⁷⁷ The majority of coverage in areas relevant for this declaration inquiry is 3G coverage. As such, Telstra discusses the issues that arise with LACs in this section.⁷⁸

Each LAC in regional and rural Australia covers a large area of up to 100 cell sites and

Therefore, most LACs in regional and rural Australia currently have a “scrambled” profile of areas with coverage from one, two or three MNOs. Therefore, any roaming agreement that includes these LACs will result in areas of overlapping coverage which will amplify the investment disincentive effects of roaming and will raise a number of technical issues.

The number of MNOs within a LAC may shift over time – towards having more areas with two or three MNOs with overlapping coverage – as incremental rollout continues. This “scrambling” of coverage will become more pronounced as TPG rolls out its network to major towns in regional and rural Australia.

It is highly unlikely to be feasible to optimise and alter LACs to avoid overlapping coverage because they represent a basic building block in the network with boundaries set to manage network signalling traffic. Any attempt to change the boundaries of LACs would have significant negative “knock-on” effects on network capacity and customer experience. In any event, overlapping coverage is so localised and variable across a LAC that manipulating its boundaries to exclude overlap areas would be very difficult to achieve.⁷⁹

⁷⁷ See Statement of Easwaren Siva dated 10 March 2017, [53]; Statement of Mike Wright, [8.3]; Report of Aetha Consulting dated 1 December 2016, [70] (**Aetha Report**).

⁷⁸ Similar issues exist with TACs, although they are less pronounced as TACs are smaller.

⁷⁹ Aetha Report, [74].



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These technical and practical limitations on activating roaming below the LAC level means that it is not possible to target declaration in a way which avoids the kind of regulatory risk identified by the Draft Decision.⁸⁰

The key risk of regulation is that it can distort investment incentives. If the regulation is not targeted or warranted, it may reduce efficient investments which result in socially beneficial outcomes.

As declaration cannot be confined to areas with particular characteristics (for example, coverage by only two MNOs), it will inevitably be over inclusive, removing access seekers' incentives to invest in geographic coverage and network quality within LACs. These problems reinforce the ACCC's Draft Decision not to declare.

5.6. The Draft Decision understated the relevance of co-investment to the LTIE

Telstra disagrees with the ACCC's Draft Decision to discount participation in Government funding programs in the assessment of the impact of declaration.

The ACCC's view appears to be that, because these investments are partially funded through Government subsidies, they are not economically efficient investments and therefore not relevant to the LTIE. This seems to limit the interpretation of what constitutes efficient investment to productive efficiency.

Telstra considers that the LTIE test supports a different view of the relevance of co-investment. The LTIE, and the efficient investment criteria in particular, are grounded in the economic concepts of allocative, productive and dynamic efficiency. Allocative efficiency in particular is strongly related to the optimisation of social welfare. Productive efficiency is related to the optimisation of the production function. And dynamic efficiency is the optimisation of allocative and productive efficiency over time.

Telstra considers that co-investment programs such as the Mobile Black Spot Program are aimed at improving these efficiencies – they improve social welfare through delivering incremental improvements to regional and rural mobile coverage. Given the economics of investing in regional and rural Australia, MNOs cannot price in such a way to capture sufficient incremental profit to recover the cost of the incremental investment. Government and other parties therefore step in to make co-investments from either the general tax pool or (in the case of private enterprises such as mines etc.) from other revenue streams that are beneficiaries of the mobile investments.

Even though co-investment programs are funded by both private and public sources, as long as the incremental social welfare created by those towers is greater than the total cost of building them, they are efficient investments from the perspective of the LTIE. As Professor Yarrow says:⁸¹

Moreover, even where uncovered areas would remain unprofitable, if government financial support were to be provided to tip the profitability balance, the amount of such support required would be reduced (relative to a situation characterised by a reward structure in which the tightening effect does not occur).

It follows that it is relevant to the LTIE to consider the impact of declaration of roaming on MNO participation in co-investment programs.

Declaration of roaming will either mean that future co-investment programs will be smaller in scope given reduced investment incentives of MNOs, or will require larger contributions from Federal or State Governments to retain their scope. If the scope of co-investment programs are reduced, then this would mean declaration has discouraged efficient investment. If declaration means that such programs would

⁸⁰ ACCC Draft Decision, s 8.2.2.

⁸¹ Third Report of George Yarrow, [42].



need more funding from Government, this may also reduce efficiency through increasing the burden on Government where private investment would have otherwise filled that gap.

In either case, MNO contributions to co-investment programs will fall with declaration. Such co-investment programs currently require significant co-contributions from participating MNOs. Telstra has committed an almost equivalent co-contribution (up to \$229 million) to funding from the Federal and State Governments in the Mobile Black Spot Program (\$267 million). If roaming is declared, MNOs will have reduced incentives to compete for government subsidies as they will be able to enjoy the benefits of additional coverage at regulated wholesale rates without incurring the expense and risk of co-investment, and building and maintaining the infrastructure. This puts the effectiveness of future co-investment programs and the improvements in mobile coverage they can deliver at risk.

Without participation in co-investment programs, some areas may perpetually lack coverage or miss out on quality upgrades.

The ACCC's Draft Decision also noted that the potential for co-investment programs to promote competition for mobile services may be limited as Telstra's wider geographic coverage means that it is best placed to benefit from Government subsidies. Telstra disagrees with this for two reasons.

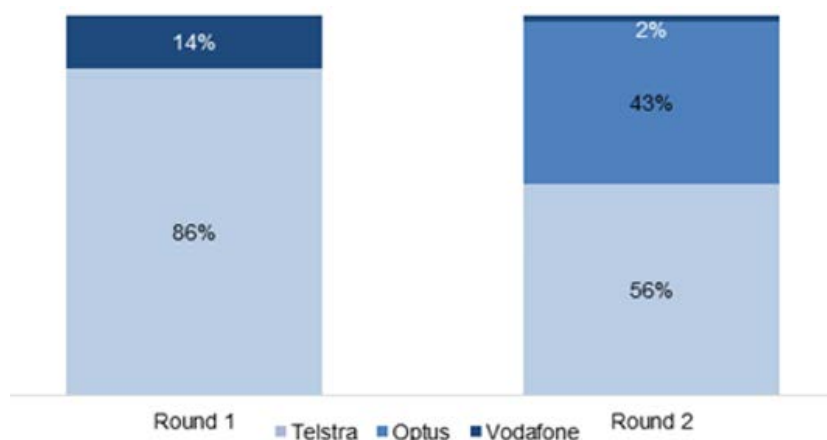
First, co-investment programs can trigger competitive responses from other MNOs. MNOs are motivated to participate in co-investment programs as a means of gaining a coverage advantage, and so the competitive dynamic of a "matching build" response from other MNOs applies whether the coverage is fully or partly funded by the first-in MNO. The outcome of this competitive rivalry is that Government subsidies have the potential not only to deliver coverage to regional and rural communities, but also to promote the conditions for infrastructure-based competition for example through co-location.

[REDACTED]

[REDACTED] These competitive responses to match investment from other MNOs clearly promote the LTIE.

Second, Telstra's wider geographic coverage does not afford it an advantage in competing for Government subsidies. The results of the Mobile Black Spot Program Round 2 demonstrate this. Although Telstra won the vast majority of sites funded under Round 1, Figure 15 shows that Round 2 has resulted in a more evenly distributed outcome. Further, Table 6 shows that Optus was awarded funding for 60 sites in remote and very remote Australia, compared to the 53 sites that Telstra won. Table 6 also shows that over half the sites funded were in inner and outer regional Australia. This is because the Mobile Black Spot Program is not only focused on expanding the fringes of coverage footprints, but also on addressing "black spots" within existing coverage footprints.

All three MNOs, including Vodafone, are well placed to compete for this funding in order to address the coverage gaps in their current network in regional Australia. Therefore Vodafone's attempt to attribute its lack of success in Round 2 of the Mobile Black Spot Program to a competitive disadvantage is unfounded.

Figure 15: Mobile sites funded under the Mobile Black Spot Program Rounds 1 and 2


Source: <https://www.communications.gov.au/what-we-do/phone/mobile-services-and-coverage/mobile-black-spot-program>

Table 6: Location of sites awarded under Mobile Black Spot Program Round 2

ABS region	Telstra	Optus	Vodafone
Major cities of Australia	1 (1%)	- (0%)	- (0%)
Inner regional Australia	38 (26%)	31 (27%)	- (0%)
Outer regional Australia	56 (38%)	23 (20%)	3 (75%)
Remote Australia	28 (19%)	22 (19%)	1 (25%)
Very remote Australia	25 (17%)	38 (33%)	- (0%)
Total	148 (100%)	114 (100%)	4 (100%)

Source: <https://www.communications.gov.au/what-we-do/phone/mobile-services-and-coverage/mobile-black-spot-program>

5.7. Access pricing is unlikely to preserve investment incentives

The ACCC's evaluation of the impact of declaration on Telstra's investment incentives assumes an ability to set an appropriate access price that would preserve Telstra's incentive to invest. However, the ACCC does acknowledge that "setting appropriate access prices would be challenging"⁸² and "declaration... carries with it the risk that the access price may be set too high or too low, which would lead to under- or over-investment."⁸³

Telstra agrees that regulatory pricing is highly uncertain and that there is a significant risk that a regulated access price will not preserve incentives for efficient investment given the unique incentives for investment in regional and rural Australia and the fact that mobile technologies are constantly evolving. The consequences for Australians in regional and rural areas if the access price does not preserve investment incentives are significant. As recognised by Mr Feasey in the context of the CRTC's inquiry:⁸⁴

[There is] widespread recognition in the rest of the world that regulators are poorly placed to determine what efficient wholesale charges might be, that competition between providers of domestic

⁸² ACCC Draft Decision, p 5.

⁸³ ACCC Draft Decision, p 72.

⁸⁴ Richard Feasey, *The regulation of mobile wholesale markets in the rest of the world (and its relevance to the CRTC's enquiry into wholesale wireless markets in Canada)*, 15 May 2014, [15].



roaming services can be relied upon to produce efficient prices and that imposing inappropriate charges will weaken further the incentives on the part of both access seekers and access providers to invest in their own facilities.

Setting an access price that accounts for indirect revenues and constantly evolving technology carries a number of challenges. It is not clear how access pricing could compensate for the forgone indirect revenues that currently fund investment and co-investment in regional and rural areas. As Professor Yarrow observes, “*trying to replicate a competitive discovery process is an exceptionally difficult thing to do with any precision or with any degree of confidence about the likely consequences.*”⁸⁵

The uncertainty surrounding how to set an appropriate access price is amplified in circumstances where new mobile technologies (requiring unknown amounts of investment) are constantly developing. While allowing compensation for non-diversifiable, systemic risk might be sufficient for an established regulated utility to encourage incremental investment, it is not sufficient compensation for investors in new networks taking higher risks, particularly on sites that are standalone uneconomic.

Telstra's investment in its network is an investment in a competitive advantage. Over time, it has taken numerous and substantial risks in pursuing this strategy and MNOs are very unlikely to take such risks under regulated rates of return. Going forward, the need to take these strategic risks is even greater given the range of innovative technologies and innovative business models being explored to address the coverage problems in regional and rural Australia.

⁸⁵ Report of George Yarrow dated 24 January 2017, [59].



06 Further improving outcomes through regulatory and policy measures

Telecommunications is a vitally important issue for regional and rural Australia. Telstra acknowledges that the frustrations of regional and rural customers over patchy or no coverage are real.

Declaring roaming is not, for the reasons clearly set out in the ACCC's Draft Decision, the answer to these frustrations.

The key question for all stakeholders – MNOs, regulators, governments and regional communities – is how do we achieve more and better coverage in regional and rural Australia?

Telstra considers the answer to this critical question lies in four parts.

Telstra needs to promote more creative investment approaches

For more than a decade, 15 per cent of Telstra's mobile network investment has gone to the most remote two per cent of the Australian population. This must continue to effectively address the coverage challenge.

In late 2016, Telstra announced a plan for significant investment and co-investment in regional Australia to be made over the next five years:

- Part of this funding – up to \$229 million – will complete the building of 577 mobile base stations as part of the Federal Government's Mobile Black Spot Program (Rounds 1 and 2). Telstra has completed 135 base stations as at the end of May 2017 and is on track to complete the build per the contract schedule.
- A further \$350 million will upgrade approximately 600 sites with 4GX to expand coverage and capacity, and improve in-building coverage and speed performance of Telstra's network. Telstra will also be rolling out small cell technology to support 4G mobile coverage in small regional and rural communities where a full-sized base station would not be feasible.
- The final aspect of this funding package is \$100 – \$200 million over five years in co-investment (in addition to Rounds 1 and 2 of the Mobile Black Spot Program). Co-investment recognises that in places of low population density, where geography and isolation make things hard, business, communities and governments need to work together for the benefit of everyone.

In determining the appropriate regulatory and policy settings for the mobile industry, it is important to recognise the effective and creative role of co-investment in dealing with the coverage challenge and to ensure MNOs have continued incentives to co-invest.

Telstra has extensive experience in co-investment outside of the Federal Government's Mobile Black Spot Program, including:

- The delivery of new fibre to Birdsville, Burketown and Aurukun through co-investment with the Barcoo and Diamantina Shires, the Queensland Government and the Federal Government;
- The \$30 million three-year program (2015-2018) with the Northern Territory Government to expand mobile services to remote Northern Territory communities;
- Telstra's co-investment with local governments in Victoria to enhance coverage in the snowfields;
- Telstra's co-investment with a range of stakeholders in far north Queensland to bring updated mobile telecommunications services to the islands in the Torres Strait; and



- In 2012, Telstra and the Western Australian Government invested approximately \$106 million to deploy new mobile communications infrastructure at 113 sites along major roads and highways across the Western Australia, and in several regional communities. This funding increased mobile phone coverage in Western Australia by up to 22 per cent.⁸⁶

In support of continued investment in regional and rural Australia, Telstra has also implemented more streamlined governance processes to enhance stakeholder engagement and to allow for quicker approval outcomes.

Further leveraging technology innovation

As set out in Telstra's Initial Submission, the deployment of 3G in regional and rural areas was facilitated by technical and service innovations made by Telstra and its vendors in the early stages of the rollout. This has included the introduction of the Telstra Mobile Smart Antenna, enhanced global standards, and mobile boost solutions. Other providers are also introducing innovative coverage solutions. Pivotal intends to build 4G LTE infrastructure in regional areas primarily to support specific IoT use cases but also to provide mobile services. All three MNOs have either launched or plan to launch VoWiFi, which allows customers to easily make and receive calls, SMS and MMS where there is limited mobile coverage but an accessible WiFi service.

A renewed effort in innovation is needed to find solutions for better coverage in regional and rural areas. For Telstra's part, in April 2017 Telstra appointed a Rural Products Manager whose sole responsibility is to identify new products and technology solutions to improve the rural customer experience.

Recently, Telstra re-designed the way it provides information about its specialist network extender devices to make it easier for customers to determine which solution is right for them. Information is now provided to customers alongside the Telstra coverage map with a clear indication of the different benefits and costs of solutions. Telstra continues to look for opportunities to improve customer experience through the use of innovative technology – and to ensure that its customers are informed about their options.

Deep and constructive engagement with regional and rural stakeholders

Telstra recognises the need to step up its engagement with customers in regional and rural Australia to ensure that investment, and technology and business-model innovations, are informed by the needs of these stakeholders.

To assist with this, Telstra established the Rural Affairs Directorate in December 2016. The Directorate now oversees all engagement with regional and rural stakeholders. To date this has resulted in:

- The establishment of a National Rural Board – an internal forum attended by the Telstra CEO, his key direct reports and other relevant Telstra executives to ensure the effective provision of products to and services for regional and rural customers.
- The establishment of state-based Regional Advisory Councils (**RACs**) to ensure the specific needs and concerns of regional communities are heard and acted upon by Telstra. RACs membership comprises external stakeholders and relevant state-based Telstra executives. The first RAC was established in Queensland in February this year. RACs in NSW and WA are currently being initiated.
- A number of formal partnerships with national and state-based agricultural organisations.

⁸⁶ Government of Western Australia, Media Release, *\$39.2 million to improve telecoms in regions*, 31 January 2012.



Telstra expects that the RACs in particular will be an important forum for identifying and supporting local co-investment opportunities.

Policy and regulatory settings that support competition and promote investment

Telstra agrees with the ACCC that, in addition to the measures set out above, regulatory and policy settings are needed to support improvements in the mobile services provided to regional Australians while preserving investment incentives. Telstra considers that in some instances, industry is best placed to lead the development of solutions, while in other cases Telstra agrees with the ACCC that measures are required from Government and/or its agencies.

In addition to the measures set out below, Telstra is open to discussing other productive ideas that promote investment and open access in order to address concerns about coverage in regional and rural Australia.

6.1. Ensuring customers are better informed

Telstra agrees with the ACCC that customers should have access to adequate information from each MNO about the availability, functionality and quality of its mobile services.

Improving transparency about network quality, expansions and improvements will promote competition in the retail market through:

- Further empowering customers to fully understand the differences between MNOs; and
- Ensuring MNOs continue to have the incentive to invest to differentiate themselves, whether through coverage, quality or price.

Telstra is taking steps to ensure its customers have information which is of value and enables them to make informed decisions when choosing a mobile service provider. Telstra does agree however that more could be done, including to promote the provision of information by MNOs on a consistent basis.

6.1.1. Monitoring network investments in regional and rural areas

The ACCC is concerned that while MNOs have announced intended investments in regional and rural areas, these announcements lack sufficient specificity or consistency between MNOs which means customers are unable to assess whether network changes or improvements will influence their choice of networks. Submissions to the Declaration Inquiry also suggested that publication of MNO investment plans aimed at improving coverage or quality of service in regional areas would provide an incentive for MNOs to carry through on announced commitments.

Telstra considers MNOs are best-placed to publish relevant investment information. It would be impractical to develop a centralised process across the industry that takes into account varying business planning cycles and is sufficiently flexible to accommodate any changes to investment plans. For example, new mobile sites are contingent on third party approvals, lease arrangements and site power agreements that can change with very little advance warning, resulting in delays or a need to reconsider investment. These factors are largely outside MNOs' control and advance publication of investment information may therefore result in customer detriment where decisions are made on the basis of future coverage that does not eventuate. Where investment plans do change at short notice, MNOs are best placed to update information as soon as practicable.

Consistency in reporting by MNOs is best achieved through industry agreement on guidelines about the type of investment information that should be published and the lead time on publication before deployment. This could include the areas where investments are being made and the materiality or significance of such investment (for example, whether the investment will change the geographic extent of coverage or upgrade technology).



Telstra is planning to enhance its disclosure of mobile coverage expansion and upgrade plans, initially by publishing a monthly rolling list of locations that Telstra expects will receive new coverage or technology upgrades within the next three months and ultimately to provide this future coverage information on its online coverage map.

6.1.2. Improving quality of network services through customer information

The ACCC's Draft Decision expresses concern that the coverage claims made by MNOs do not always reflect the actual experience of mobile customers or the quality of the coverage offered.

All MNOs currently publish coverage maps on their websites which enable customers to view the type of network coverage and, where relevant, typical download speeds available in specific areas. Telstra also provides customers with information aimed at ensuring that they are able to maximise coverage where it may be marginal – for example, through the use of blue-tick approved mobile devices or external antennas. There is also functionality on Telstra's website for customers to provide feedback on coverage which informs its coverage map and may influence future network investment.

The information on network coverage and boundaries provided in Telstra's coverage map is updated on at least a quarterly basis, as a result of ongoing review and verification using complex computer predictions (taking account of factors including but not limited to terrain, vegetation, urban density and base station power levels), drive survey verification and customer feedback. Further, Telstra takes a relatively conservative approach to reporting coverage by removing areas where coverage may be fragmented.

The inherent characteristics of radiocommunications limit the accuracy achievable in coverage maps, and the service quality actually received by customers. In particular, there are a number of highly localised factors that may affect the actual quality of service received by the customer. For example, actual coverage could be degraded or non-existent in specific locations due to certain physical structures or geographic features or as a result of the device used. Physical structures that may block or inhibit coverage could include basements, lifts, underground car parks, concrete buildings, tunnels and road cuttings. The specific nature of building materials used in an office or dwelling also impacts on coverage, with some materials such as steel framing and metallic window films having a significant impact on coverage within a building. Geographic features that may block or inhibit coverage could include formations such as hills and mountains or even vegetation.

Even so, MNOs could do better with their coverage maps. Telstra is looking at opportunities to improve the granularity of the information it provides, including potential customer apps and incorporating third party data, to collect and inject more customer-centric network performance information into the coverage map views Telstra provides.

As with investment information, Telstra considers that coverage information is best provided by MNOs who have competitive incentives to inform their customers and can update information as required. However, Telstra recommends that industry work together to maximise consistency in the way that coverage map information is presented to customers to reflect the expected coverage experience and enable customer comparison. This approach is preferable to information consolidated by a third party, which can have limitations due to the adoption of different standards of measurement and delayed updates.

6.2. Measures to reduce the costs of deploying and improving mobile networks

Telstra agrees with the ACCC's Draft Decision that no single Government initiative or regulatory mechanism can reduce the costs of deploying mobile networks in certain areas of Australia. However, there are opportunities through a range of measures that will improve MNOs' ability to expand coverage.



6.2.1. Improving “open access” in the Mobile Black Spot Program

The Draft Decision notes that under the Mobile Black Spot Program there is no mandatory requirement to offer roaming at new mobile sites despite the use of significant public funds. However, imposing a mandatory roaming requirement under a co-investment program will likely reduce incentives for MNOs to participate in co-investment programs – in the same way that declaring roaming will undermine investment incentives in regional and rural Australia – through eliminating competitive differentiation on the basis of coverage. Further, because co-funded sites will typically form part of an existing LAC/TAC, if roaming is to be required at co-funded sites then it will need to be “switched on” across the whole LAC/TAC. The adverse incentives and technical issues of roaming applying on a LAC/TAC wide basis discussed in section 5.5 will similarly apply.

Telstra supports the principle of “open access” to the Mobile Black Spot Program and other co-funded facilities being achieved through other measures, including through improved co-location opportunities. Vodafone’s allegations that the towers that Telstra has designed and built under the Mobile Black Spot Program are only suitable for one occupant are false. Telstra has in fact built the new sites co-funded under the Mobile Black Spot Program to allow for an additional MNO to co-locate without incurring additional site upgrade costs. Further, Telstra’s agreement with the Federal Government for Mobile Black Spot Program Round 2 requires backhaul to be offered at price terms and conditions more favourable than regulated rates.

Both Optus and Telstra have also asked for Expressions of Interests from other MNOs to co-locate on sites co-funded under the Mobile Black Spot Program in advance of the commencement of site construction.

Telstra is aware that Vodafone, by contrast, did not provide for additional capacity on its Mobile Black Spot Program sites in Round 1 and Telstra has needed to make significant investments to co-locate on those sites. Not only is Vodafone not facilitating co-location by other MNOs on its Mobile Black Spot Program sites, but Vodafone has also not taken the opportunity to co-locate on any Telstra Mobile Black Spot Program Round 1 sites to improve its coverage.

Telstra considers the Mobile Black Spot Program could be strengthened through a mandatory X+1 build requirement. X+1 build requirements allow an additional MNO to co-locate at significantly lower incremental cost compared to sites that are built without additional co-location capacity. If such a requirement is mandatory, then there will always be scope for a second MNO to deploy infrastructure on Government subsidised mobile sites at a lower cost. Further, where it appears that X+2 capacity is required for a site based on expressions of interest from other MNOs, this could occur at no additional charge (beyond the normal co-location charges) if a firm commitment to co-locate (such as an agreed deposit amount) is received by a set deadline.

A further option in relation to X+2 capacity is for expressions of interest to account for potential future interest in co-location as MNOs continue to invest and expand their network coverage. In this case, an MNO who is not currently in a position to co-locate on a particular site but anticipates that they may be in the future could effectively “reserve” a position to facilitate improving their mobile coverage when required. Effectively, this would leave open the possibility of future competitive coverage through co-location.

It may also be appropriate for the Mobile Black Spot Program bidding process to award additional points to MNOs who do more to support co-location (beyond the mandatory build requirements suggested above) to promote this form of competition further.

Finally, as noted below, Telstra is reviewing the efficiency of its approach to facilities access to determine whether improvements can be made to assist access seekers who are seeking to co-locate on Telstra facilities. As a major user of co-location, Telstra also considers that there is significant benefit from an industry-wide review to identify practical solutions to any access concerns.



6.2.2. Essential and regulated inputs to mobile networks

6.2.2.1. Facilities access regime

While Telstra considers the current facilities access regime is working effectively, Telstra agrees with the ACCC's Draft Decision that it is timely to review it and that there is scope for improvement.

Telstra believes that this is best done through a collaborative industry process. Telstra agrees that the process should explore the following suggestions made by the ACCC in the Draft Decision:

- Incorporating tower infrastructure not owned by carriers into the facilities access regime on the basis that this would provide more transparency and consistency regarding the use of such facilities.
- Imposing a “use it or lose it” obligation on MNOs when nominating a position on a mobile base station to encourage more effective infrastructure sharing and overcome the potential for one MNO to prevent others from being able to access a preferred position on the structure. As outlined in Robert Joice's statement, Telstra's access arrangements currently incorporate a “use it or lose it” type obligation, as access seekers have two years in which to commence construction activity once a design and construction proposal for co-location has been approved.⁸⁷
- Requiring MNOs to conduct pre-build discussions, particularly in areas of limited infrastructure-based competition, to address concerns that base stations cannot accommodate equipment from other MNOs. As outlined in the Robert Joice's statement, Telstra already actively seeks to maximise tower sharing opportunities at new tower build sites.⁸⁸

In the meantime, Telstra is reviewing its internal facilities access processes to determine whether there is scope for cost and efficiency improvements. For example, Telstra is currently considering whether the digitisation of some information and processes may assist access seekers in determining site capacity upfront before submitting a co-location application.

6.2.2.2. Backhaul

In the Draft Decision the ACCC does not specifically suggest measures aimed at addressing concerns relating to backhaul. The ACCC does, however, note that backhaul is an essential input to deploying mobile networks and a significant cost of extending networks in regional and rural areas.

As with facilities access, Telstra considers that there are opportunities to improve the application and approval process for the provision of backhaul services. Telstra has been actively working on this through, for example, the deployment of drones to reduce the time taken to conduct feasibility studies in remote areas. This remains an area of priority for Telstra in order to improve outcomes for its customers.

6.2.3. NBN Infrastructure

The ACCC considers there may be scope for MNOs to leverage the NBN fixed wireless infrastructure to expand or improve their mobile networks at a reduced cost. Given this would only be possible within the NBN fixed wireless footprint, Telstra agrees with the ACCC that this is unlikely to address concerns relating to coverage and competition in regional and rural Australia. However, it is possible that NBN infrastructure may assist with enhancing coverage or competition in areas within its footprint where this is commercially preferable to MNOs making alternative investments, such as new or upgraded sites.

⁸⁷ Statement of Robert Joice, [27].

⁸⁸ Statement of Robert Joice, s 4.2.



6.3. Consideration of competition issues in the radiocommunications regulatory framework

The Draft Decision notes the importance of radiofrequency spectrum as an input to all wireless services, particularly high-value communications services such as mobiles. Telstra supports the need for the ACCC to be involved in spectrum allocation, and notes that the ACCC has been playing a significant role in spectrum allocation for some time:

- Secondary market trades of spectrum have been subject to ACCC informal merger clearance on several occasions,⁸⁹ a process in which industry deals directly with the ACCC and the Australian Communications and Media Authority's (ACMA) role is very limited.⁹⁰ The competition impact of spectrum aggregation has also been a factor in the ACCC's consideration of acquisitions of competing telecommunications providers.⁹¹
- Allocation limits have been applied to all major spectrum auctions held since 1998,⁹² including limits that excluded Telstra from participating such as in the recent 700 MHz residual lots auction.⁹³ The ACCC gives the public and industry an opportunity to provide submissions prior to determining its advice on allocation limits to the Minister,⁹⁴ and the ACCC also makes its views known in its own submissions to ACMA public consultation processes at initial stages of spectrum band planning.⁹⁵

While Telstra acknowledges the ACCC's view that it may have a greater role to play given the importance of spectrum to downstream mobiles markets, Telstra's view is that the role of the ACCC for the future spectrum management regime is best considered as part of the current Spectrum Review process rather than in the current Declaration Inquiry. The Exposure Draft of the new Radiocommunications Bill proposes to formalise the ACCC's role in determining allocation limits (to be known as "licence issue limits"). The new arrangements will involve the ACMA determining the licence issue limits following consultation with the ACCC.⁹⁶ The Minister's specific power under the existing law to direct the ACMA on the limits it should set, is to be removed.⁹⁷

As with any changes to the spectrum regime, Telstra considers it is important that any enhancement of ACCC involvement in spectrum allocation is consistent with ongoing incentives to expand and upgrade mobile coverage for all MNOs.

⁸⁹ See, for example, Optus Mobile Pty Ltd, *Proposed acquisition of certain spectrum licences from 3G Investments (Australia) Pty Ltd*, ACCC reference 40666, 4 March 2010; Telstra Corporation Ltd, *Completed acquisition of spectrum licence from Commander Communications Limited*, ACCC reference 36129; Optus Networks Pty Limited, *Completed acquisition of spectrum licences from Astar United Communications Limited*, ACCC reference 30992, 5 February 2008; Hutchison Telecommunications Australia Limited, *Proposed acquisition of AAPT Limited's 850 MHz spectrum licences*, ACCC reference 29263, 23 August 2007.

⁹⁰ Section 85 of the *Radiocommunications Act 1992* (Cth) allows for the trading of spectrum licences and the ACMA's role is limited to amending the Register of licences to reflect changes in licensee. The ACMA may make rules regarding assignments under section 88 but these are directed at technical aspects – see: *Radiocommunications (Trading Rules for Spectrum Licences) Determination 2012*.

⁹¹ See, for example, Singtel Optus Pty Ltd, *Proposed acquisition of Vividwireless Group Limited*, ACCC reference 48301, 16 April 2012; Vodafone Group plc and Hutchison 3G Australia Pty Limited, *Proposed merger of Australian mobile operations*, ACCC reference 36511, 29 May 2009.

⁹² See ACMA, *Spectrum auctions list*, available at: <http://www.acma.gov.au/Industry/Spectrum/Radiocomms-licensing/Spectrum-licences/spectrum-auctions-list-spectrum-planning-acma> (accessed 16 June 2017); Productivity Commission, *Inquiry Report No. 22, Radiocommunications*, 1 July 2002, p 107.

⁹³ For example, subsection 6(c) of the *Radiocommunications (Spectrum Licence Allocation—Residual 700 MHz Spectrum) Direction 2016* which placed an allocation limit of 2x20 MHz on total 700MHz band holding post-auction, effectively excluding Telstra which already held this amount of spectrum in the band; *Radiocommunications (Spectrum Licence Limits – 3.4 GHz Band) Direction No.1 of 2000* which excluded Telstra from acquiring any spectrum in major population areas in the ranges 3425 - 3492.5 MHz and 3542.5 - 3575 MHz.

⁹⁴ For example, the ACCC consultation on allocation limits for the regional 1800MHz spectrum auction in 2015 – see, ACCC, *Media Release, ACCC consults on spectrum competition limits*, available at: <https://www.accc.gov.au/media-release/accc-consults-on-spectrum-competition-limits> (accessed 16 June 2017).

⁹⁵ See, for example, ACCC, *Submission re Reconfiguring the 890–915/935–960 MHz band*, 10 March 2017, available at: <http://www.acma.gov.au/Industry/Spectrum/Spectrum-projects/800-and-900-MHz-bands/reconfiguring-the-890-915-935-960-mhz-band> (accessed 16 June 2017).

⁹⁶ Exposure Draft, *Radiocommunications Bill 2017*, ss 36-37.

⁹⁷ Though, the Minister will retain a general power of direction under section 14 of the *ACMA Act 2005* (Cth).