To:

Australian Competition & Consumer Commission

via email: superfastbroadbandinquiry@accc.gov.au

Submission on SBAS and LBAS declaration inquiry

Thank you for the opportunity to submit comments on the ACCC's public inquiry into the local bitstream access services (LBAS) and superfast broadband access service (SBAS) declared services.

I have over 30 years experience in engineering, commercial and regulatory roles in telecommunications in Australian and international markets.¹ In particular, I was Chief Technology Officer of NBN Co from 2009 to 2014.

Since leaving NBN Co, while working in Hong Kong, and now since my return in 2019 to Australia, I have made numerous public comments regarding Australia's fixed broadband market on my blog (see www.mclarenwilliams.com.au) and in previous submissions to ACCC and parliament inquiries.²

In these comments I have attempted to highlight how Australia's fixed broadband market has not developed as efficiently and effectively as those of other comparable markets due to the market dominance (and effective monopoly) of firstly, Telstra and, now NBN Co in the provision of the underlying network infrastructure for Australia's fixed broadband. Unlike other similar markets, Australia's policy framework has treated fixed broadband for residential and small business services as a natural monopoly over many decades. Despite significant change in industry structure over the last decade due to the rollout of the NBN, there has been minimal change in what amounts to a bi-partisan policy endorsing fixed broadband as a natural monopoly. In my opinion, this view that fixed broadband is a natural monopoly in all circumstances is one of the major reasons for Australia's lagging fixed broadband performance against relevant international benchmarks.³

The ACCC, in particular with its decision to declare the SBAS service in 2016 on the basis that "superfast broadband services, irrespective of their geographic footprint and subscriber base, display characteristics of natural monopolies, due to both technical and economic barriers to entry" has explicitly conformed with this policy.

When announced in 2009, the NBN had two major objectives, namely to improve Australia's broadband performance and end Telstra's dominance of the fixed broadband market. Over a decade later, after the initial FTTP plans were replaced with a Multi-Technology Mix (MTM)

 $\underline{https://www.accc.gov.au/system/files/LBAS\%20and\%20SBAS\%20declaration\%20inquiry\%20-\%20Discussion\%20paper \ 0.pdf}$

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¹ For more details please refer to my Linked In profile : https://www.linkedin.com/in/mclarengary/

² Please see previous submissions to ACCC Communications Market Study (https://www.accc.gov.au/system/files/Submission%205%20-%20Gary%20McLaren.pdf) and the Joint Standing Committee on the National Broadband Network

⁽https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/National_Broadband_Network/smallbusinessandcase/Submissions)

³ An example of one of many articles detailing Australia's low ranking in relation to download speeds can be found here:

https://ia.acs.org.au/article/2020/australia-slips-further-in-internet-speed-rankings.html

⁴ See p17 of the ACCC's discussion paper for the purposes of this consultation available at:

plan by the Coalition in 2013, Australia is still lagging in its broadband performance on most comparisons and Telstra remains the dominant retailer with approximately 47% market share.⁵

While the completion of the original FTTP model would have addressed Australia's limited availability of superfast broadband services, the change to the MTM plan has seen limited investment in fibre networks, which is a key factor in Australia's continued lagging broadband performance. Opportunities for private investment to also participate in the upgrading of Australia's fixed broadband infrastructure have been restricted by a range of legislation and regulations that have been imposed at various stages during the build phase of the NBN as summarised in Section 3 of the ACCC's discussion paper for SBAS and LBAS declaration inquiry.

This current enquiry is mainly focussed on the ACCC's decision to declare the SBAS service in 2016. The SBAS declaration was directly linked to TPG Telecom's announcements, immediately after the Coalition gained government, that it would build a Fibre to the Building (FTTB) broadband network serving 500,000 customers in direct competition with the revised NBN MTM policy.⁶ NBN Co asserted that TPG Telecom's FTTB network would need to comply with the 'level playing field' rules of the Telecommunications Act and thus be automatically covered by the LBAS declaration. NBN Co sought adjudication of this position by the ACCC, which ruled that TPG Telecom's FTTB network was predominantly not within the level playing field rules.⁷ The Vertigan Review of the NBN, initiated by the Coalition Government, recommended the ACCC undertake a 'public inquiry with a view to declaring vectored VDSL services'.⁸ The recommendation for declaring the vectored VDSL services proposed by TPG Telecom expanded into a declaration of all fixed superfast broadband regardless of the fixed network technology used.⁹

ACCC wrong to classify Superfast Broadband Networks as Natural Monopolies irrespective of Geography

I am aware of no other comparable market which imposes such a range of regulation on non-incumbent operators seeking to make new investments in higher performing fixed broadband networks. The effect (and I would contend also the purpose) of this legislation and regulation has been to protect NBN Co from private sector competition during the network build phase. Unlike most other similar jurisdictions, Australia's telecommunications policy has developed a policy that explicitly hinders competition from new entrants at the infrastructure level or what is usually referred to as 'infrastructure competition'.

In most circumstances these regulations would be viewed as restrictions on investment that hinder competition and would be seen not to be in accordance with the LTIE. More specifically these regulations would be contrary to one of the limbs of the LTIE test, namely that there should be 'economically efficient use of, and economically efficient investment in telecommunications infrastructure'. Prima facie these regulations are at odds with the ACCC's

⁵ See the ACCC Communications Market Report 2018-19:

 $[\]underline{https://www.accc.gov.au/system/files/Communications\%20Market\%20Report\%202018-19\%20-\%20December\%202019_D07.pdf}$

See https://www.gizmodo.com.au/2013/09/tpg-planning-its-own-100mbps-fibre-network-with-cheap-unlimited-plans/

⁷ See https://www.accc.gov.au/media-release/accc-not-to-take-action-to-block-tpgs-fibre-to-the-basement-network-rollout

⁸ See Recommendation 6, p 29 of the report by the Vertigan Review under section 152EOA of the *Competition and Consumer Act* https://www.communications.gov.au/sites/default/files/3. Section 152EOA Report 1.pdf

⁹ See ACCC's final report into the declaration of the SBAS: https://www.accc.gov.au/system/files/mea-final%20-%20%28published%29%20-sbas%20-%20declaration%20inquiry%20final%20decision%20-%2029%20july%202016%20-%20public%20version.pdf

own guidelines in making declarations that refer to the "strong relationship between competition and efficiency" in terms of this test. 10

The countervailing argument that appears to have justified the regulation of non-NBN investment is that fixed broadband (at least for residential use) is in all geographies a natural monopoly and that the first broadband network, once operational, becomes the only broadband network for that geography. As a result, from a consumer perspective, there is no choice of network provider and the lack of competition in the market for retail broadband services (another important limb of the LTIE test) overrides the efficiency test. This can also be interpreted as infrastructure competition being a race to be the first to serve a geographic market. The prize for the operator who wins this race is a natural monopoly that subsequently benefits from monopoly-style excessive profits or rents unless appropriated regulated.

This view implies a fixed broadband market that is essentially static after the deployment of the first fixed broadband network in a geographic area, that is after the initial race is won. The possibility for new innovations and technologies that may provide higher quality and/or lower cost fixed broadband services are largely ignored. It also assumes that the fixed broadband market is isolated from other telecommunication markets such as mobile and wireless broadband markets. In other words, the 'dynamic efficiency' component of the efficiency test does not carry much or any weight under this argument.

The ACCC's guidelines on its declaration process highlight the significant harm to end-users if the dynamic component of the efficient investment test is not accounted for. In particular the ACCC guidelines say:

"...declaration could deter efficient investment, stifle the development of a more diverse and differentiated range of goods and services, delay the deployment of new technology and prolong inefficient production processes. In a dynamic environment such as telecommunications, this is likely to cause significant harm to end-users'11

Historically, the development of the fixed broadband market has been dynamic rather than static. New technologies have been continuously applied over more than two decades to enable ever higher broadband speeds that have been demanded by the market (as the internet and other innovations have created more digital services). The landline telephone network has progressed through various stages of xDSL technologies that progressively increased download speeds. The pay TV hybrid coaxial networks have been repurposed as high speed broadband networks to capture part of the growing market. Cellular mobile network technologies are now being deployed (ie. 5G) that will provide faster wireless download speeds to more consumers. These market developments are anything but static. They reflect a highly dynamic market over the longer term, which is the focus of the LTIE.

The view that fixed broadband markets are natural monopolies regardless of geography appears to have its origins in the view that they are similar to the last century's public landline telephone networks. These networks provided a standardised service that exhibited the key characteristic of natural monopolies – that is increasing economies of scale leading to ever decreasing unit

¹⁰ See p 42 of the ACCC's publication - 'A guideline to the declaration provisions for telecommunications services under Part XIC of the Competition and Consumer Act 2010: https://www.accc.gov.au/publications/guideline-for-part-xic-declaration-provisions-fortelecommunication-services
11 Ibid, p.45.

costs as the network expanded. The 'increasing returns to scale' and 'absence of dynamic benefits' due to the highly standardised nature of landline telephony services is a classic case of a natural monopoly that rightly should be subject to regulation.

For many decades the market for landline telephony was static. The digital revolution of the late 20th century, however, created new markets and the market to supply landlines was no longer just about connecting a stable standardised service to households and businesses. New dimensions of supply were opened up that included, most importantly a range of new innovations such as mobility and digital data transmission. Telephony became one of many data based applications rather than the only service provided on the network. As a result of these new markets, the marginal cost of supplying these new dimensions were no longer on a decreasing cost curve with the quantity of services supplied (ie. not just the quantity of connections but also the quantity or amount of data that could be transmitted became a key factor). In particular the investment in new technologies and infrastructure to supply higher data rates (ie. broadband networks) involved large new capital investments and hence increasing marginal costs as the demand for higher speeds and larger volumes of data increased. Both the 'increasing returns to scale' and 'absence of dynamic benefits' characteristics of landline telephony gave way to the opposite as fixed broadband developed during the first decade of the 21st century.

New entrants into these markets could obtain cost advantages over the incumbent telephone network operators who faced increased investments to deploy new xDSL and eventually fibre cabling to replace copper cables and hence faced increasing marginal costs in terms of the amount of data that could be transmitted. As a consequence, infrastructure competition rather than regulation of monopolies has been the preferred policy framework wherever new entrants can leverage new technologies to supply higher data rates at lower marginal costs than incumbents. Most comparable countries to Australia enacted policies that encouraged such infrastructure competition to ensure efficient investment in fixed broadband infrastructure in urban areas. In geographies where the density of premises was not sufficient to reduce the cost of infrastructure investment to levels enabling competition, public policy had a role to ensure monopolies were regulated and government subsidies could flow to geographic areas that were not benefiting from infrastructure competition.

The enterprise (ie. corporate and larger business) market was the first to transition from natural monopoly to infrastructure competition during the late 1990s and early 2000s with significant investment from new entrants. No regulations were imposed to guard against the formation of new local natural monopolies by these new entrants. In residential markets, the most prominent new entrants into broadband markets were the pay TV companies who were able to leverage their existing hybrid coaxial cable network assets. In some high density residential markets (eg. Hong Kong) new entrants were able to deliver lower cost and higher performing services to residential customers than the incumbent by rolling out new cabling infrastructure for Fibre to the Building (FTTB) and FTTP services.¹³

Australia's enterprise market was able to benefit from increased competition and investment in new fibre assets in central business districts and other major business areas. However, infrastructure competition in the residential fixed broadband market failed to progress after

¹² Ibid, p.45. These are the ACCC's terms that characterise a natural monopoly or where 'it would cost less for the market to be served by a single supplier than by multiple suppliers'.

¹³ McLaren, G. (2017). Hong Kong's Fibre Broadband Market - Busting the Myth of Residential Fibre Broadband always being a Natural Monopoly. *Journal of Telecommunications and the Digital Economy*, 5(3), 36-49. https://doi.org/10.18080/jtde.v5n3.117

Optus pulled back from its pay TV business in the early 2000s. The perceived failure of Optus to compete with Telstra gave support in Australia to the view that residential fixed broadband, like landline telephony, was always a natural monopoly. This argument ignores the success of many (if not most) pay TV networks to grow sustainable broadband businesses in most other comparable markets. In some markets (eg. USA and Canada) the erstwhile pay TV operators are now the dominant broadband providers. The reason for the Optus pull back were varied and complex. A major one was the restrictions on content (i.e the anti-siphoning laws for sport content) that restricted the ability of pay TV networks to compete with the incumbent free to air TV market. But one of the lasting legacies appears to be an acceptance by many policy makers in Australia that it was simply because Optus was attempting to do the impossible and compete with Telstra's natural monopoly in all forms of fixed telecommunications. In fact, they were attempting to compete against a large dominant incumbent that, through its media, telecommunications and government ownership relationships was able to successfully limit the capacity of the new entrant to gain a foothold in a range of inter-related markets.

ACCC's 2016 analysis of investment in superfast broadband markets in 2016

In its decision to declare the SBAS, the ACCC was of the view that government policy would transition:

to measures allowing for greater competition with NBN Co and for other providers to take on 'infrastructure provider of last resort' obligations, the number of areas where NBN Co and other networks overlap is likely to remain constant (and represent a diminishing proportion of the total number of areas where superfast broadband services are supplied)¹⁴

These views were formed based on documents released by the Coalition Government¹⁵, although the government did not make any specific submission to the declaration inquiry. NBN Co, in its submission, did not provide any evidence that it planned to avoid network deployments in areas where alternative operators had established superfast broadband networks.

TPG Telecom, in its submissions to the initial inquiry and the draft decision made it clear the it was of the view that NBN Co "is overbuilding TPG's FTTB network and TPG expects will overbuild other Superfast Broadband (SB) networks". ¹⁶ Spirit Telecom, in its submission, advised that "NBN Co is increasingly rolling out to the buildings where Spirit's services exist and TPG's network footprint overlays much of the Spirit service footprint, as do many wholesale fibre providers". ¹⁷

¹⁴ See p32 of ACCC's Final Decision paper on the 'Superfast Broadband Access Service declaration inquiry' available at: https://www.accc.gov.au/system/files/mea-final%20-%20%28published%29%20-sbas%20-

^{%20}declaration%20inquiry%20final%20decision%20-%2029%20july%202016%20-%20public%20version.pdf

¹⁵ In particular the *Telecommunications Regulatory and Structural Reform* policy of December 2014 available at: https://www.communications.gov.au/sites/g/files/net301/f/Telecommunications Regulatory and Structural Reform Paper - 11 Decemberpdf

¹⁶ See specifically point 13(a) of TPG Telecom's submission on the draft decision of the SBAS declaration inquiry available at: https://www.accc.gov.au/system/files/SBAS%20declaration%20inquiry%20-%20TPG%20submission%20-%207%20December%202015.pdf

¹⁷ See p1 of Spirit Telecom's submission on the draft decision of the SBAS declaration inquiry available at: https://www.accc.gov.au/system/files/SBAS%20declaration%20inquiry%20-%20Spirit%20submission%20-%204%20December%202015.pdf

However, the ACCC discounted the arguments of the non-NBN service providers that NBN Co would largely overbuild their own networks, highlighting that the superfast broadband services from these providers were not likely to be bottleneck services.

The ACCC determined that the:

"...extent of overlap between the NBN and other competing fibre networks" (and therefore the extent to which NBN Co can act as a competitive constraint on these networks) appears to be relatively limited at present and occurring in specific geographic locations'18

Under the ACCC's view that superfast broadband networks are static natural monopolies once in place and that investment would not be impacted by regulation, the natural market development for superfast broadband would have seen TPG Telecom (and perhaps some smaller operators) securing monopolies in their planned build out to locations ahead of the build out of the NBN. Other operators, and in particular NBN Co, would have forsaken these locations in their network buildouts. Furthermore, new wireless technologies (eg. 5G) would have little impact on the fixed broadband market.

This is not how the market has developed in period since the declaration was made in 2016.

Market Developments since the SBAS declaration

As of 30 June 2020, NBN Co has declared practical completion of its network build with over 11.7 million premises able to connect. The fixed broadband network covers approximately 10.7 million premises, with 9.8 million being in brownfield areas and 0.9 million in greenfield areas.19

NBN Co has continued to build out regardless of the presence of existing superfast broadband networks in Canberra, Geelong, Ballarat and Mildura operated by TPG Telecom. Furthermore, NBN Co has continued its network build out to buildings where TPG Telecom has deployed its FTTB technology.

Although TPG Telecom did scale back its FTTB build from the originally announced 500,000 premises²⁰ after declaration of SBAS and Coalition announcements of the Regional Broadband Scheme levy, a publicly available list of connected buildings indicates coverage at 785 buildings²¹. These will be a mixture of residential and business premises in these buildings.

I have conducted an analysis of these TPG Telecom buildings using publicly available details of NBN Co's footprint as of August 2020.²² The analysis shows that 60% of the building have current NBN availability, 33% are in the process of construction and 1% are proposed. The status of the remaining 6% is unknown which may indicate a lack of NBN coverage. However, an analysis by technology type indicates that 86% have deployed either FTTB, FTTC or FTTN,

¹⁸ See p32 of ACCC's Final Decision paper on the 'Superfast Broadband Access Service declaration inquiry' available at : https://www.accc.gov.au/system/files/mea-final%20-%20%28published%29%20-sbas%20-

^{%20}declaration%20inquiry%20final%20decision%20-%2029%20july%202016%20-%20public%20version.pdf

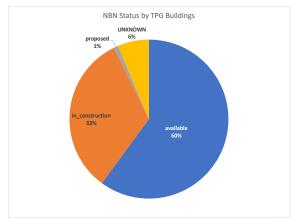
¹⁹ See NBN Co's Weekly Progress Report available at: https://www.nbnco.com.au/corporate-information/about-nbn-co/corporateplan/weekly-progress-report

20 See article in iTnews.com.au – 11th August 2017 : https://www.itnews.com.au/news/tpg-revises-reach-of-fttb-network-470625

²¹ See whirlpool.com.au - https://whirlpool.net.au/wiki/tpg fttb buildings

²² This analysis uses NBN Co's publicly available technology and status checking by address and geospatial information available at https://data.gov.au/dataset/ds-dga-c79b2219-7e1f-46a9-961f-e87668122f02/details

3% have had FTTP deployed and 10% have had HFC deployed. The remaining 1% deployment is not known.



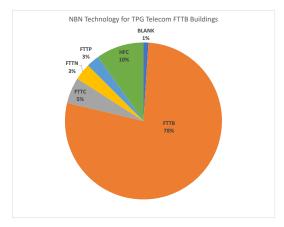


Figure 1 - NBN status by TPG Buildings

Figure 2 - NBN technology by TPG Buildings

It can be seen from this analysis that NBN Co has overbuilt at least 94% of the buildings where TPG Telecom is able to provide a superfast broadband service. It is highly likely that this analysis underestimates rather than overestimates the degree of overlap between TPG Telecom's FTTB and NBN Co's superfast broadband footprints.

In terms of the TPG Telecom network alone, it is clear that the NBN Co's overbuild plans (or lack thereof) has not proceeded according to the ACCC's view of 2016. Accordingly, the view that the NBN would not act as a competitive constraint on the superfast broadband services has proved to be wrong.

The impact of the SBAS regulation on smaller non-NBN fibre operators is more difficult to assess given limited data availability. However, the Minister for Communications has indicated that NBN Co's rollout is 99% complete and that only complex connections remain to be rolled out.²³ From a brownfield's perspective it is understood that only Telstra's South Brisbane FTTP network will not covered. As such we can conclude that only greenfield SBAS and Telstra's South Brisbane FTTP network will not be subject to competitive constraint from the NBN.

In respect of greenfield's networks, as highlighted in the ACCC discussion paper, the Coalition Government has released a new discussion paper regarding deployments of fixed broadband services in such areas.²⁴ The Telecommunications in New Developments (TIND) policy has a specific section which is reproduced below that it directly at odds with a view that fixed broadband is in all circumstances a natural monopoly.

 ²³ See https://www.paulfletcher.com.au/media-releases/media-release-nbn-co-reaches-115-million-build-milestone
 ²⁴ See Telecommunications in new developments policy available at: <a href="https://www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communications.gov.au/have-your-say/consultation-pull-www.communication-pull-www proposed-update-telecommunications-new-developments-tind-policy

3.8 Competitive infrastructure provisioning ('overbuilding')

Consistent with the evolution of the telecommunications in new development market and the move to a more normal and sustainable market for the future, there will be no special rules relating to the competitive provision of telecommunications infrastructure in new developments or overbuilding of one network by another.

In an open and competitive market like Australia's, where developers are free to choose which carrier they wish to use and carriers are generally free to make commercial decisions, such rules have no merit going forward. To the extent market circumstances dictate an area is most efficiently serviced by one fixed-line network, this should be the outcome of normal commercial forces and does not need to be mandated by Government policy. Conversely, where an area may be profitably served by multiple competing networks, this should not be ruled out (and indeed cannot be ruled out under

In addition, the TIND paper goes so far as to say that there should not only be "competition for the market" but also "competition in the market" in the "case of telecommunications in new developments". 25 The qualifier for why this should be the case in "new developments" areas only and not is not clarified. However, the proposed removal of Shareholder Ministers' approvals required for NBN Co to overbuild existing networks providing NBN-comparable services in greenfield areas²⁶ supports the view that less regulation promotes efficient investment and is in the LTIE. A reciprocal removal of regulation on private operators to enhance their ability to compete with NBN Co would likewise be in the LTIE for the same reasons.

The impacts of the SBAS declaration have also been significant. As discussed above, TPG Telecom has reduced the extent of its FTTB rollout as a result of the regulation of superfast broadband services. Furthermore, a successful new entrant into the NBN market, Aussie Broadband, highlighted that its own plans to build its own fibre network to encompass residential and small business customers were prevented by regulations as it would require "certain structural changes to the company".²⁷

Fixed Wireless developments

Innovation in wireless technologies has also developed considerably since the original declaration of the SBAS. In particular 5G has become a key strategic technology being deployed globally to provide a range of new and innovative services. One of the earliest deployment cases for this technology is in the provision of fixed wireless services that deliver in excess of 25 Mbps download speeds and hence are clear substitutes for fixed superfast broadband services.

Optus has launched fixed wireless services using 5G technology that provide a 'satisfaction guarantee' of 50Mbps downloads.²⁸ Telstra²⁹ and Vodafone³⁰ have announced plans to offer similar services in the near future. These developments highlight the continuing dynamic nature of the fixed broadband market discussed above. The lack of regulation on fixed wireless operators is promoting investment and highlighting that superfast broadband networks are not natural monopolies irrespective of geography. It is the clearest indication yet that continued regulation of superfast broadband services only services to detract from investment efficiency and as a result is contrary to the LTIE.

²⁶ See p19 of ACCC July 2020 discussion paper on the SBAS and LBAS declaration inquiry.

²⁷ See article in iTWire.com.au – 22nd July 2020: <a href="https://itwire.com/telecoms-and-nbn/aussie-broadband-fibre-rollout-bringing-10gbps-to-photo-p some-business-customers.html
²⁸ See https://www.optus.com.au/for-you/broadband-nbn/5g-home-broadband/5g-home-broadband-plan

²⁹ See https://www.afr.com/companies/telecommunications/telstra-taunts-nbn-with-5g-fixed-wireless-plan-20200227-p544zu

³⁰ See https://www.afr.com/companies/telecommunications/vodafone-looking-at-fixed-wireless-alternatives-to-nbn-20190109-h19vuz

Developments in the United Kingdom

Ofcom, the regulator of telecommunications in the United Kingdom, has recently considered their policy framework for regulation of what they refer to as ultrafast networks — which is a mix of fibre, cable, advanced copper technologies such as G.Fast and potentially fixed wireless, that can deliver download speeds of at least 300Mbps. These networks are the next step up from superfast broadband (which Ofcom considered were networks offering at least 30Mbps) in the dynamic evolution of the broadband market.³¹

In their review, Ofcom, categorised geographic areas according to their ability to sustain competition in the operation of ultrafast broadband networks. The three categories are as follows:

- Category 1 Competitive areas
- Category 2 Potentially competitive areas
- Category 3 Non-competitive areas

Category 1 areas relied on a minimum of three networks (two in addition to the incumbent, British Telecom). Only 50,000 premises (or 0.2% of UK's premises) were included in areas with this high threshold. Category 2 areas could have two existing networks currently in operation, planned or determined to be economic. Over 21 million premises (or approximately 70% of UK premises) were found to be in this category.³²

This analysis highlights that ultrafast networks, which are networks that require even further investment in fibre upgrades than superfast networks, are potentially only natural monopolies in areas that service approximately 30% of UK's residential premises. An equivalent analysis on Australia could be expected to show similar results given that the Australia residential population has a similar urbanisation rate (86.2%) as that of the United Kingdom (83.9%).³³

This analysis by Ofcom highlights that superfast broadband networks are not everywhere natural monopolies. Indeed, the majority of premises in a country with similar urbanisation characteristics as Australia may be served by two or more ultrafast network providers.

Recommendation regarding the LBAS and SBAS inquiry

Given the review being undertaken and the opportunity for the ACCC to extend, vary or revoke both the LBAS and SBAS declaration it is recommended that the ACCC do the following:

- 1. Change its position that superfast broadband networks are, irrespective of geographic footprint natural monopolies.
- 2. Acknowledge that in areas that are not natural monopolies that infrastructure competition is in the LTIE

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³¹ See Ofcom's overview of Ultrafast Broadband networks at: <a href="https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/ultrafast-broadband-news-ultrafast-bro

broadband-now-available-most-uk-properties

32 See Ofcom – Promoting Investment in fibre networks – Wholesale Fixed Telecoms Market Review available at https://www.ofcom.org.uk/consultations-and-statements/category-1/2021-26-wholesale-fixed-telecoms-market-review

³³ See Wikipedia - https://en.wikipedia.org/wiki/Urbanization by country

3. Vary the declaration in order that superfast broadband services supplied in competitive areas not be subject to the LBAS and SBAS declarations.

Determination of the areas which are competitive may be a theoretically difficult exercise. While Ofcom has performed a similar analysis in the United Kingdom to set the playing field for the build of ultrafast broadband networks, in Australia the rollout of the NBN in brownfields areas and the requirement for FTTP in greenfields areas makes this an unnecessary exercise.

The location of new networks builds, that seek to overbuild the existing NBN or non NBN greenfield builds, are the best indicator of where natural monopolies do not exist. A procompetitive regime, unrestricted by level playing field restrictions and declared service regulations, would see the determination of competitive areas by the operation of market forces. Such a competitive mechanism would ensure efficient investment and also provide more choice for consumers and be in accordance with the LTIE.

The continuance of the SBAS and LBAS regulations on non-NBN networks where NBN Co has not been deployed (eg. greenfield and the Telstra South Brisbane networks) may be warranted to ensure retail choice of broadband service provider. However, if the overbuild of these networks is subsequently performed by NBN Co, which is by legislative intent a wholesale only provider, then the services operated in these areas by the non-NBN co operators should no longer be subject to the LBAS and SBAS declarations.

This arrangement would also have the benefit of aligning the regulatory arrangements for the non-NBN fixed operation providers with the new fixed wireless broadband services that are likely to enter the market. Efficient investment in new broadband networks relies on a technology neutral regulation framework. Benefitting one technology over another for the provision of essentially the same service creates investment distortions and is thus not efficient and hence not in accordance with the LTIE.

Depending on the success of deployments of fixed wireless broadband services it may be the case that the SBAS and LBAS regulations can be withdrawn even for non-NBN networks where NBN Co does not overbuild due to competition from the fixed wireless networks. With potentially up to three different fixed wireless suppliers in addition to the non-NBN network, consumers would have sufficient choice of retail service provider and hence it would be in the LTIE for competition to be unrestricted.

Remaining regulation of non-NBN providers

The varying of the LBAS and SBAS declaration as described above would still leave in place the provisions of the (amended) Part 8 of the Telecommunications Act and the Carrier Licence Conditions relating to superfast broadband services. The effect of both of these regulations is that superfast broadband service providers must continue to operate wholesale and retail businesses in a structurally or functionally separate manner with strict pricing controls on 25/5 Mbps Layer 2 wholesale services.

As a result, without withdrawal of these non ACCC regulatory provisions, private operators would continue to suffer from disincentives to invest and restrict the benefit of competition to enhance the LTIE.

These regulatory arrangements, along with levies imposed under the Regional Broadband Scheme arrangements, serve to protect NBN Co from competition. By announcing its intention to allow NBN Co to overbuild the FTTP networks of private operators in greenfield areas without the need for Shareholder Minister authorisation, it would be hoped that it would also consider removal of these remaining restrictions on private operators to ensure a more level playing field. However, as shareholder of NBN Co and ultimate regulator, government is inherently conflicted when it comes to the removal of these regulations. It can only be hoped that any transition of NBN Co to private ownership will see such regulations withdrawn before the sale rather than being used as a mechanism to inflate the return of such a sale.

Conclusion

The ACCC should amend its views regarding the natural monopoly of superfast broadband services given the highly dynamic nature of the investment in such networks given ongoing technology developments. As a result of the near national coverage of the NBN, which enables choice of retail service provider and acts as a competitive restraint on non-NBN superfast broadband service providers, it is no longer necessary for operators of non-NBN networks to be subject to regulation that imposes unnecessary obligations and restricts investments in new broadband technologies and networks and is thus not in the LTIE.

The ACCC, which is solely guided by the LTIE criteria when it comes to its powers to declare telecommunication services, should not see a need and should not be perceived to make decisions that are influenced by the government's ownership of NBN Co. The ACCC has a mandate to be independent of government and make decisions in the LTIE of Australians as consumers and should not be conflicted in the review of the LBAS and SBAS declarations by questions related to NBN Co's ownership. Government, which has prime accountability to voters, needs to make the requisite decisions, balancing taxpayer and consumer interest of its own accord.

Furthermore, given the possible sale of NBN Co in the future, the ACCC should make clear that its decisions are based solely on the LTIE criteria and not subject to the current or future ownership arrangements of NBN Co.

Yours sincerely,

Gary McLaren

Appendix - Response to specific ACCC Questions

No.	Question	Response
1	Do you consider that the LBAS service description as declared in 2012 remains current and appropriate? Please explain the reasons for your view.	No comment
2	Do you consider that the SBAS service description as declared in 2016 remains current and appropriate? Please explain the reasons for your view.	No comment
3	Should the LBAS and SBAS be combined under a single declaration instrument?	To the extent the LBAS and SBAS need to remain for non NBN Co and natural monopoly areas (eg. some greenfield deployments) then the LBAS and SBAS should be combined for simplicity and clarity.
4	Do your consider that Telstra's fibre networks in South Brisbane and Velocity estates should continue to be exempt from the requirement to provide a Layer 2 bitstream service?	Assuming no NBN Co overbuild or purchase of these networks, then it would be appropriate for Telstra to comply in full with the finalised SBAS and LBAS requirements.
5	How has the NBN affected network competition in high-speed broadband service markets?	As discussed above the rollout of the NBN into markets covered by private operators (eg. Canberra, Geelong, Ballarat, Mildura and FTTB apartments provided by TPG Telecom) highlight that these geographies are no longer natural monopolies and that the LBAS and SBAS are no longer justified under the LTIE criteria.
6	What is the extent of competition at the wholesale level of the superfast broadband services market, and what is the risk of competition not developing in the future	It is clear that the LBAS and SBAS regulation has not been successful in developing competition at the wholesale level as evidenced by the lack of arrangements with the major market players (Telstra, Optus, TPG, Vocus and Vodafone) with non-NBN networks. This failure is to be expected given the presence of NBN networks on a near universal basis.
7	Have the LBAS and SBAS declarations affected competition in the retail market for superfast broadband services?	Yes – the regulation has restricted investment by TPG Telecom and smaller players like Aussie Broadband to overbuild the NBN. This has clearly impacted competition in these areas and

		prevented the delivery of higher speed
		services in denser urban geographies.
8	Are there geographic areas where competition at the wholesale or retail levels is considered to be effective, if so where are these areas and why is competition considered effective?	TPG Telecom (under the iiNet brand) continues to services in areas Canberra, Geelong, Ballarat and Mildura despite the overbuild of these networks by NBN Co. TPG Telecom also continues to promote its FTTB product through a dedicated page on its website (https://www.tpg.com.au/fttb). This is evidence that competition is sustainable in these areas and not a natural monopoly.
9	Are there any particular barriers to entry impacting competition in the wholesale or retail markets for non-NBN superfast broadband services?	The major barriers to entry are related to the government and ACCC regulations. This is evidenced by service providers such as Aussie Broadband avoiding servicing small business and residential customers due to the cost of separating its wholesale and retail business operations.
10	Are there any capacity or availability constraints which might limit the ability of fixed and mobile wireless technologies to provide large numbers of end-users with a high-speed broadband service comparable to a fixed line service?	Wireless technologies are not expected to be able to efficiently service the large majority of end users due to spectrum constraints and the cost of more densely deployed cell sites. However, it is becoming clear that a significant market share (up to 20 to 30% of consumers may be serviced using new 5G technologies).
11	Are wireless broadband services (offered over mobile broadband, fixed wireless or satellite) substitutes for fixed line broadband services and if so, to what extent?	There is unlikely to be any major difference between fixed wireless broadband services and standard fixed wireless services, particularly at superfast broadband speeds (ie. 25Mbps to 100Mbps). Mobile and satellite services will not be direct substitutes due to terminal (ie. handset and tablets) and bandwidth constraints respectively
12	Has the Industry Code alleviated competition concerns in the supply of VDSL services to buildings and should these services continue to be subject to the LBAS / SBAS declarations?	It appears from the data analysis of TPG Telecom's FTTB deployment that NBN Co and TPG Telecom have co-existing FTTB, FTTC and FTTN deployments in approximately xx% of buildings. NBN Co has also deployed HFC and FTTP in some buildings indicating that nonspectrum sharing arrangements.
13	Do the legislative changes regarding regulation and supply of superfast broadband services	The legislative changes do not impact the need for the ACCC to address that the LBAS and SBAS declarations are not in the LTIE where natural monopolies do not exist.

	enhance or diminish the need for declaration of the LBAS and/or SBAS?	
14	Do you consider that continued declaration of the: a) LBAS b) SBAS will promote competition and the economically efficient use of infrastructure? Please explain the reasons for your view.	The LBAS and SBAS declarations need to be restricted in their application only to monopoly areas in order promote competition and economically effective use of infrastructure. These will be, by definition, areas where the NBN is not available. Private operators who decided to overbuild the NBN, by their willingness to invest, are declaring such areas to no longer be natural monopolies. Currently, the only such non-NBN areas, to my knowledge, that the LBAS and SBAS declarations need to apply to are
		greenfields areas and Telstra's South Brisbane FTTP deployment.
		If NBN Co decides to overbuild these remaining monopoly areas or other technologies (such as fixed wireless broadband) become available then these areas also fail the monopoly test and non-NBN operators should be relieved of their obligations under the LBAS and SBAS declarations.
15	Are the markets identified in the 2016 declaration decision still relevant for the SBAS? Are the identified markets also relevant for the LBAS?	See Answer to Q.14
16	If the ACCC were to continue the LBAS and/or SBAS declarations: a) Should the service description cover the services nationally, or be limited in geographic scope? b) Will carrier-specific exemptions promote the LTIE?	See Answer to Q.14
17	What is an appropriate duration for potential LBAS and SBAS declarations? Please explain the reasons for your view.	The LBAS and SBAS declarations are only required in so far as there are non-NBN natural monopoly areas of superfast broadband provision. This may continue in some greenfield areas for some time. If deployment of fixed wireless broadband networks are successful then these restrictions may possibly be withdrawn so

	that unrestricted competition can benefit
	the LTIE.