TELSTRA CORPORATION LIMITED

TELSTRA SUBMISSION TO JOINT STANDING COMMITTEE ON NBN

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01 Delivering on the intent and potential of the NBN

Telstra welcomes the opportunity to make this submission to the Joint Standing Committee (**the Committee**) on the National Broadband Network (NBN). As we head into what many believe to be the start of a connectivity-driven fourth industrial revolution, there has never been a more important time for the telecommunications industry. The success of our telecommunications networks in Australia over the next decade will significantly influence the success of our economy and our nation.

It is clear that we have become incredibly dependent on our devices and communications networks in the way we do business, interact within our communities and enjoy our lives. The positive social and economic impact of high-speed broadband is beyond dispute. Two estimates put the additional economic activity from the NBN at $10.4 billion p.a.[1] and $24 billion[2]. Telecommunications is fast becoming the single most important infrastructure in the country.

Obtaining these potential benefits will be highly dependent upon Australians being connected to and using the high-speed broadband the NBN was intended to provide. It's therefore imperative we have the right national policy and regulatory framework in place for Australia to facilitate its success.

Telstra makes this submission to inform the Committee of submissions we have made on issues relevant to the inquiry, which we have also raised in several other regulatory and policy proceedings that have either recently occurred or are underway.

02 The economics of NBN markets

To ensure a successful and collaborative industry that delivers on end user expectations and broader social and economic benefits, it is critical the right financial and economic incentives exist for all parties to invest and compete in the delivery of services to end-users.

2.1. Telstra respects and appreciates the financial constraints on nbn co

nbn co is funded by a substantial investment by Australian taxpayers. The most likely scenario is that taxpayers will ultimately contribute $19.5 billion of debt and $29.5 billion of equity to nbn co before it becomes cash flow positive and is able to fund its own ongoing investments.[3]

nbn co was initially expected to be a commercial enterprise with an expected rate of return on taxpayers' debt and equity of 7%.[4] However, those forecast returns have fallen to 3.2%[5], which is below the 6.2% weighted average cost of those investments.[6] With an expected return lower than its cost, taxpayers cannot expect to get their $49 billion investment back directly from nbn co's revenues.

That is not to say that the government's investment is not valuable. Unlike private investors, government and taxpayers also benefit from the social returns from their investment in the NBN.[7] These social returns culminate in higher GDP, higher tax returns associated with increased economic activity and lower costs of delivering government services. nbn co has estimated these social returns grow from $1.2 billion in 2017 to $10.4 billion in 2021,[8] which translates to a 14% to 35% return on taxpayers'

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[1] AlphaBeta (2018)
[2] Vertigan Panel, Independent cost-benefit analysis of broadband and review of regulation, Volume 1, August 2014, page 10.
[3] nbn co, Corporate Plan 2020-23, pp. 48, 54.
[4] nbn co, Corporate Plan 2011-2013, Exhibit 1.7.
[5] nbn co, Corporate Plan 2020-23, page 55.
[6] nbn co, 2018-19 Regulatory Information – LTRMC Spreadsheet, 4 October 2019.
[7] HoustonKemp, Review of NBN's broadband pricing objectives, 26 June 2019.
[8] nbn co, Connecting Australia, April 2018, pp14.

investment, respectively. When added to nbn co's 3.2% private return, the sum is much higher than government's cost of providing debt and equity into the company.

It is therefore important our regulatory and policy settings seek to optimise the broader social and economic return from taxpayers' investment in nbn co, and not focus solely on improving nbn co's 3% internal rate of return. Indeed, focussing too much on nbn co's private returns will put at risk the broader social and economic returns that justify taxpayers' investment.

2.2. RSPs are also struggling with low NBN margins

For Retail Service Providers (RSPs), 2019 was the year in which the telecommunications industry passed the half way mark in the migration to the NBN. However, RSPs are facing the combined challenges of low margins on nbn co's services and the complexity and cost in delivering nbn co's services to customers. RSPs cannot currently make a return on their investments due to nbn co's prices begin too high and there is therefore little incentive for RSPs to compete and invest in the delivery of high-speed broadband services to end users. This is also putting at risk the broader social and economic benefits that should be derived from taxpayers' investment in NBN.

To illustrate the harm that nbn co's high prices has on RSPs, Telstra faces at least a $3 billion reduction in EBITDA as a result of migrating customers to the NBN, even after considering the payments Telstra receives from nbn co for access to our network and migration payments. This is because Telstra must pay nbn co high wholesale prices. By FY19 Telstra had absorbed around 50% or $1.7 billion of those economic headwinds, with more than 60% of homes in Australia connected.

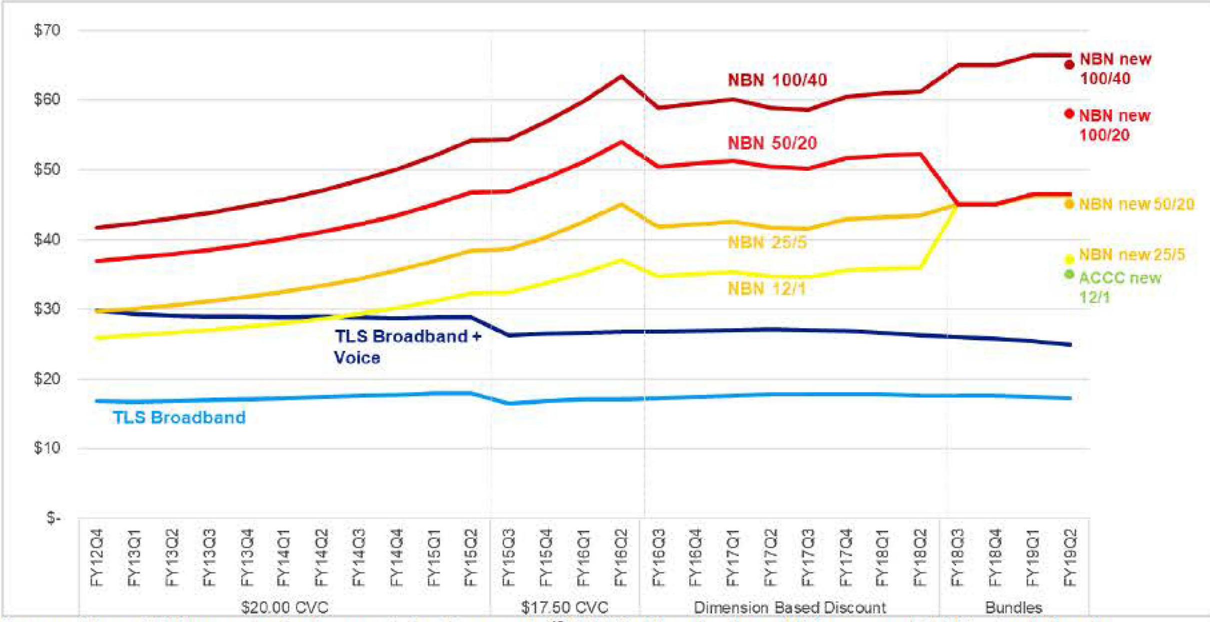
Other RSPs have also made it clear that the NBN has had an adverse effect on their business. TPG's Chairman stated it faced "*headwinds of $76m in the year caused by the Government's NBN rollout*" and "*the NBN rollout is expected to continue to create significant margin headwinds for the [TPG] Group over the next couple of years*".[9] Vocus' CEO stated "*We and our competitors have spoken previously of the broader industry pressures in the consumer broadband market. The transition of services to the NBN leads to an inevitable decline of legacy fixed voice revenues and fixed broadband margins. This is a significant challenge across the industry.*"[10]

Further, some RSPs have made the decision to bypass nbn co's services. As was reported in the Australian Financial Review, *"Optus chief executive Allen Lew says his company will exploit weaknesses in the national broadband network with the launch of a new 5G fixed wireless plan, in a move that will put more pressure on the NBN's "user pays" funding model. The new fixed wireless product will use 5G wireless technology to deliver unlimited home broadband that Mr Lew insisted would be as high quality as fibre optic broadband, and superior to NBN plans in some areas…. Mr Lew said Optus would be able to get better margins out of this product than it can out of reselling NBN plans."*[11]

The harm to the financial sustainability of RSPs' supply of nbn co's services is primarily caused by nbn co's wholesale pricing model. nbn co's wholesale prices are approximately double what RSPs paid for legacy broadband services, as illustrated below.

[9] TPG, Annual Report Year Ended 31 July 2019, pp. 3-4.
[10] Vocus, 2019 Annual General Meeting Speeches, 29 October 2019, pp.14.
[11] Australian Financial Review, Optus takes fight to NBN with 5G internet, 1 February 2019.

Chart 1: Wholesale prices on Telstra's copper network[12] compared to nbn co wholesale prices



Source: Internal Telstra analysis, nbn co pricing documents,[13] ACCC determinations. TLS represents Telstra's wholesale broadband and voice services provided on Telstra's legacy copper network.

03 Current pricing structures, including wholesale pricing, affordability and take-up

Telstra considers that nbn co's wholesale pricing needs to change in order to stimulate take-up and use, and therefore fulfil the ambition of the NBN policy.

In 2018, WIK forecast the expected demand for bandwidth in the UK by 2025 on behalf of Ofcom (the UK's communications regulator). As illustrated in the table below, WIK expects that consumer demand will be driven by the parallel usage of several applications with higher requirements for download, upload and quality parameters compared to today. Telstra's experience suggests these to be equally applicable in Australia.

[12] The wholesale services on Telstra's network were the average of ULL/LSS/WDSL for access seekers providing broadband services and the average of ULLS/WLR+WASL/WLR+LSS for access seekers providing broadband and voice services.
[13] Note, chart does not reflect the potential impact of short-term promotional discounts – such as recently proposed temporary discounts for NBN's 100/40 Mbps service, which do not apply to existing100/40 Mbps customers.

Table 3: Estimation of bandwidth requirements by application (Mbps)

Application category	Downstream bandwidth in 2015	Assumed CAGR (%)	Downstream bandwidth in 2020*	Downstream bandwidth in 2025
Basic internet	2	25	~6	~20
Home office/VPN	16	30	~60	~250
Cloud computing	16	30	~60	~250
State of the art media and entertainment (4k, 3D, UHD)	14	20	~40	~90
Progressive media (8k, VR)	25	30	~100	~300
Communication	1.5	20	~5	~8
Video communication (HD)	8	15	~10	~25
Gaming	25	30	~100	~300
E-Health	2.5	30	~10	~50
E-Home/E-facility	2.5	30	~10	~50
Mobile Offloading	2	30	~10	~15

Source: WIK. * Calculated by Telstra from WIK data.

However, the NBN has not yet delivered the 'step-change' in broadband experience for Australians that was intended. Australia continues to perform poorly in international comparisons, with slower speeds and higher prices than benchmark countries.[14] At the same time, the health of the industry is increasingly at risk.

nbn co's pricing strategy also puts affordability at risk. In the four years since Telstra started measuring digital inclusion through the Australian Digital Inclusion Index, affordability remains the one measure where significant improvements have not been made.

Although the NBN helps improve access, the affordability gap between high and low-income households is at the same level as it was in 2014. While the cost of internet data has gone down, households are now spending more money on internet services to account for higher usage. Expenditure on these services has increased faster than increases in household income. Affordability is a particular challenge for Australians on low or fixed incomes because they have less discretionary income to spend.

After sustained public scrutiny of nbn co's pricing strategies, the ACCC initiated a public consultation to consider whether it should issue an Access Determination that may help address industry's concerns.[15] The ACCC's proposal is to regulate nbn co's low-speed plan – providing 12 Mbps download speeds – at a price of $35. We welcome the ACCC's response to industry concerns and its inquiry into nbn co's pricing. Telstra believes the ACCC does need to regulate an nbn co service. However, Telstra put to the ACCC a more ambitious plan that would improve outcomes for customers, encourage more efficient use of the NBN, deliver better socio-economics outcomes, and promote competition by making pricing more predictable and viable for RSPs.[16] The more ambitious plan proposed by Telstra would address the following industry issues:

- High broadband charges: nbn co's entry-level broadband plan should be a 50 Mbps service priced at the ACCC's proposed $35 per month, providing customers a clear and obvious benefit from migrating to the NBN and utilising taxpayers' $49 billion investment.

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[14] Link Economics, High Speed Broadband; Wholesale Price Comparison, 19 February 2019.
[15] https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/inquiry-into-nbn-access-pricing/discussion-paper
[16] Telstra, Submission to the NBN access pricing inquiry discussion paper, 29 November 2019.

- Taxing NBN usage: nbn co's data usage charges (CVC prices), which have been nbn co's primary mechanism to increase prices, should be zero-rated or overage charges and penalties should be removed. This would reflect the fact that RSPs have already responded to end users' demands for unlimited data plans, which should be supported by nbn co's pricing. It will also encourage greater utilisation of capacity on the NBN.

- High voice-only charges: nbn co's voice-only charges are harming voice-only customers, a high proportion of which are aged 60+, receive a pensioner discount, and/or are medical priority assist customers. High nbn co charges make it unviable for RSPs to compete in the voice-only market and, for those who remain in the market, result in inefficient retail charging structures that increase the cost of service to consumers. The ACCC should also set a regulated price for nbn co's voice-only service, priced at $10 per month. This will ensure RSPs can provide the service on a more viable basis, acknowledging that the majority of customers taking this service are older and/or vulnerable members of the community.

- Complex charging structures: nbn co's reliance on usage-based charges, temporary discounts, rebates and offers limit efficient use of the network and impair the ability of RSPs to compete and innovate by subjecting them to unnecessary risk, uncertainty and complexity to the detriment of end users. To illustrate, the latest 1 January 2020 edition of nbn co's Discounts, Credits and Rebates list is the 27th version of this document issued by nbn co since the first issue in November 2017 and currently runs to 167 pages (covering 45 different types of discounts, credits and rebates as set out in Part B and subject to 48 different sets of terms and conditions as set out in Part C). Temporary discounts and offers should be replaced with permanent and predictable pricing that provides RSPs with certainty and the incentive to compete. Complex product and pricing constructs (for example, nbn co offers multiple 100 Mbps consumer products at different prices points) should be replaced with simple ones.

This plan would also benefit nbn co, driving higher revenues as customers take up higher speeds and utilise the network more efficiently. Independent economic modelling by WIK[17] shows this more ambitious proposal can be achieved without compromising nbn co's revenues or ability to invest – it would result in very similar broadband revenues for nbn co compared to its September 2019 pricing. However, under this proposed approach, by 2024 there are likely to be materially more customers on the NBN, with more on 100 Mbps download speeds or above. Consequently, the nation's GDP could be up to $18 billion higher over that same period, resulting in an additional $5.13bn of tax revenue.[18]

This is a download speed that was widely available prior to the nbn rollout and could therefore result in customers, as taxpayers, being dissatisfied with their investment in nbn co. Regulating a plan with a speed that is too low will also risk causing Australia to fall even further behind other benchmark countries in terms of broadband speed, and result in lower usage and take-up of the NBN than is optimal.

Also in response to the ACCC's consultation process, we submitted that the ACCC's proposed regulation of a 12 Mbps service will likely encourage end-users to low-speed NBN broadband services. This could result in customers perceiving poor value for money from the NBN and, as taxpayers, being dissatisfied with their investment in nbn co. This is not the outcome we understand successive governments have been seeking, nor is it one the industry should be seeking as it could be detrimental to the NBN consumer experience and perceived value for money.[19] Encouraging take up of 12/1Mbps

[17] WIK, The impact of NBN wholesale pricing on the take-up of NBN services and economic benefits associated with the NBN, Report on behalf of Telstra, 19 November 2019.
[18] Based on Australia's tax to GDP ratio of 28.5% in 2017, https://www.oecd.org/tax/revenue-statistics-australia.pdf.
[19] Recent cross-industry consumer research commissioned by Telstra suggests that customers on a 12/1 Mbps entry level plan are about 25 per cent less likely to be satisfied with the speed, value for money and reliability of their service than those with a 50/20 Mbps service. The research also suggests

broadband is also unlikely to address the needs of customers identified as being vulnerable such as aged, disabled and lowest income. Depending on household circumstances, vulnerable customers have differing needs for connectivity that need to be catered for by an approach designed to improve Australia's digital inclusion. A one-size fits all scheme designed simply to reduce the price of nbn co's slowest speed service will not meet these requirements.

04 Network coverage issues

nbn co's goal is to complete the build of the NBN by 30 June 2020. As this completion date approaches, two important questions arise.

First, nbn co acknowledges that when roll out is complete all standard installation premises in Australia will be able to connect to the NBN, excluding premises in new developments and premises defined as 'complex connections'.[20] However, there are concerns the number of premises falling into the category of 'complex connections' – reported to be around 100,000 – is too high.[21] Particularly as these customers would expect to be connected to the NBN once roll out is declared to be complete. As discussed in Section 6, Telstra has submitted to the ACCC that nbn co should focus more attention to these customers to ensure they are able to connect to its network.

Second, nbn co's Statement of Expectation (SoE) states "*the Government expects the network will provide peak wholesale download data rates (and proportionate upload rates) of at least 25 megabits per second to all premises, and at least 50 megabits per second to 90 per cent of fixed line premises as soon as possible*". We believe there is a risk that the NBN will not be able to deliver these speeds by the time roll out is declared complete, however, we appreciate there is little public information available to confirm the current state.

As such we believe there is a need for more transparency for how nbn co will deal with these important questions in the lead up to 30 June 2020.

05 The delivery of the business segment strategy

Alongside the rollout to residential premises, nbn co has also been targeting the business segment (or enterprise market). While arguably a positive development for the provision of competitive infrastructure for this market, there are aspects of nbn co's approach to offering business services that raise significant concerns.

Telstra acknowledges that the entry of nbn co into the business segment is consistent with the intention that business customers using legacy copper service migrate to the NBN. Importantly, it is clear that nbn co is also intended to be a wholesale-only provider, that it cannot discriminate between access seekers nor act in favour of itself in the provision of wholesale services, and is bound by transparency and non-discrimination obligations.

After investigating nbn co's conduct in the enterprise market, the ACCC issued a formal warning to nbn co finding that "*nbn co's conduct amounted to a serious breach of its non-discrimination obligations*".[22] Specifically, the ACCC found that nbn co acted in favour of Macquarie Telecom in the supply of

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that this poor perception becomes entrenched, with 67 per cent of 12/1 Mbps customers being unwilling to upgrade to higher speed tiers for modest increases in price (compared to just 30 per cent for 50/20 Mbps customers).

[20] nbn co, Corporate Plan 2020-23, footnote 1.

[21] https://www.zdnet.com/article/nbn-shifts-positive-cash-flow-predictions-out-to-2023/

[22] ACCC, nbn co given formal warning, 9 October 2019. See also https://www.accc.gov.au/public-registers/telecommunications-registers/telecommunications-formal-warnings-register/formal-warning-to-nbn-co-for-breach-of-non-discrimination-obligations.

Enterprise Ethernet services by providing terms of supply, while at the same time it did not make available those same terms of supply to other access seekers even though they had been requested.

The ACCC's formal warning reflected some of the concerns raised by access seekers regarding nbn co's conduct in the enterprise market. However, a substantial number of concerns still remain. These include, at a high level:

- **nbn co is providing eligible services directly to enterprise customers in contravention of the law requiring nbn co to be wholesale only –** nbn co is contracting directly with enterprise customers selling them services to upgrade their connections to Fibre to the Premises (FTTP), often at no cost, but only if those customers agree to buy NBN access services for up to five years.

- **Direct dealing with enterprise customers –** The deals that nbn co offers directly to enterprise customers frequently include price and non-price terms and conditions that RSPs have either not negotiated with nbn co themselves (so cannot replicate) or cannot offer on a commercial basis due to the structure of nbn co agreements. nbn co also has no meaningful separation between that part of its business that deals with RSPs as a wholesale supplier, and that part that competes against RSPs by directly contracting with enterprise customers.

- **Anti-competitive pricing of fibre upgrade services –** nbn co's pricing can mean that it is cheaper to buy a bundle of, for example, 100 fibre upgrades than it costs to buy a bundle of 50 upgrades. Such pricing means infrastructure-based competitors will find it more costly to mix their own and nbn co's infrastructure relative to just buying all infrastructure from nbn co. This is intended to, or has, the effect of pushing infrastructure competitors out of the market.

- **Overbuilding existing fibre infrastructure –** nbn co, as a Government Business Enterprise (GBE), has access to very cheap capital relative to other privately-owned competitors, which is ultimately being used to drive competitors out of the market. While enterprise customers might benefit from lower prices in the short run, competition in the long run will be harmed if all the existing infrastructure providers are replaced with an nbn co monopoly. This is also arguably an inefficient use of taxpayer-funded resources at a time when the focus of nbn co should be on completing the rollout of the NBN.

- **Ongoing lack of transparency in relation to relevant agreements –** Telstra has expressed a number of concerns with respect to the transparency of agreements nbn co enters into for fibre upgrade services. Transparency of such agreements is an important measure to ensure non-discrimination. Improvements are expected as a result of the ACCC's formal warning to nbn co and nbn co's consequent undertaking to improve transparency. We are continuing to work with the ACCC to resolve further instances where transparency is lacking.

Telstra considers that nbn co needs to respect its mandate of being wholesale only and refocus its spending of public funds to improve broadband in the consumer market rather than overbuilding in the enterprise market that is already competitively supplied.

06 Customer service and serviceability

While customer experience is a responsibility between RSPs and their customers, it is critically dependent on the support provided at the wholesale level by nbn co.

In late 2017, the ACCC commenced an inquiry into nbn co's wholesale service standards following a high number of consumer and RSP complaints about poor experiences on the NBN and with nbn co. On 1 October 2019, the ACCC released a draft decision that regulated terms are likely to be required to improve consumer experiences on the NBN. Telstra is supportive of the approach taken by the ACCC.

Some of the service standard related issues that still need to be addressed by nbn co include:

– ***Supporting the no service, no fee regulation –*** Australian Communication and Media Authority (ACMA) rules require RSPs not to charge consumers unless their NBN service is operational. In contrast, absent the ACCC Draft FAD, nbn co requires RSPs to pay the full service fee once nbn co completes the order regardless of whether it is working. This presents a pertinent example of where nbn co does not back up the regulations faced by RSPs.

– ***Provision of information to ensure customers receive the service they are paying for –*** Currently information about the maximum attainable speed for a particular service is not provided by nbn co until after connection of the service, making it difficult for RSPs to set customer expectations when the service is ordered. This can lead to scenarios where a customer orders and begins paying for a service at a particular speed tier which cannot be provided to the customer's premise. Consequently, the customer plan will need to be changed, at cost and detriment to both the customer and RSP. A related issue is that nbn co requires RSPs to pay the Access Virtual Circuit (AVC) charge as per the list price even where it has been identified that a service is underperforming i.e. slower and/or less stable than expected.

– ***Process to address growing number of non-serviceable premises –*** The number of non-serviceable (or "left behind") premises in areas declared ready for service is increasing, as nbn co's serviceability performance in rollout regions has been steadily decreasing. A recent estimate suggests the number of non-serviceable premises could reach 100,000 premises at network completion.[23] At present, disconnection of these services has been avoided through an extension of the disconnection date. However, Telstra is concerned that, despite these growing numbers, nbn co is not dedicating sufficient resources to delivering serviceability to the "left behind" premises and has not provided any plan to address the long tail of non-serviceability.

We support the ACCC's inquiry into improving nbn co's service standards. Greater accountability is required to ensure customers are able to experience the full social and economic benefit of the NBN that was envisaged.

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[23] https://www.zdnet.com/article/nbn-shifts-positive-cash-flow-predictions-out-to-2023/