

Independent Cost-Benefit Analysis and Review of Regulation

Supplementary submission of NBN Co to Expert Panel in
response to the Regulatory Issues Framing Paper issued
13 February 2014

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1 Introduction

NBN Co has considered the submissions to the Panel in response to the Regulatory Issues Framing Paper issued 13 February 2014, and wishes to address a number of issues raised by industry stakeholders in those submissions.

This submission has two sections. The first section briefly highlights a number of issues on which there is broad stakeholder and industry consensus. The second section responds to a number of specific issues raised by stakeholders in their submissions. NBN Co's submission to the Panel's Consultation Paper on Telecommunications Regulatory Arrangements (lodged at the same time as this submission) also responds, where relevant, to some of the submissions to the Panel in response to the Regulatory Issues Framing Paper.

2 Consensus on structural issues

The Panel has acknowledged that questions of market structure and regulation are being considered in the context of existing markets and regulation, such that the Panel is not working from a clean slate. NBN Co notes that this statement was generally endorsed by industry stakeholders, whose submissions indicated a general consensus on several major structural issues. As stated by the Communications Alliance:

*'While this breadth creates room for sweeping recommendations, Communications Alliance and its Members take the view that where fundamental elements of the existing framework are in place (typically after extensive work and negotiation by multiple stakeholders) and are not manifestly 'broken', they should continue to exist in the future framework.'*¹

Similarly, Telstra stated:

*'The core elements of the NBN policy have wide acceptance within the industry, and are now the basic assumptions underlying business cases, regulation and subsequent policy. It would be immensely difficult to unwind those changes.'*²

In particular, NBN Co notes that industry submissions indicate a general consensus on the following issues:

- that NBN Co should remain a wholesale-only, open access network provider;
- that the structural separation of Telstra remains a desirable outcome; and
- that the ACCC should remain the telecommunications regulator.

In addition to the above issues, a number of stakeholders also supported the retention of arrangements regarding the number and location of NBN Co's point of interconnect (**POI**). This is not unexpected, given that *'RSPs and competing wholesale backhaul providers have made many commercial decisions on the basis of those PoI locations'*.³

Finally, many stakeholder submissions noted the strong natural monopoly characteristics of fixed line telecommunications infrastructure. Specifically, the Commonwealth Treasury noted:

*'most economists and commentators seem to agree that at least part of every fixed line telecommunications network exhibits natural monopoly characteristics. That is to say, part of the network can be provided at lower cost by one as compared to multiple providers. Even if the network is a natural monopoly, this does not necessarily mean that multiple network providers might not be able to operate profitably in at least some areas, but it does affect how efficient that might be from a cost minimisation perspective.'*⁴

¹ Communications Alliance, 'Vertigan Review Panel: Regulatory Issues Framing Paper: Communications Alliance Submission', March 2014, p 2

² Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 3

³ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 3

⁴ Treasury, 'Submission to the independent cost-benefit analysis and review of regulation for the National Broadband Network: Regulatory issues framing paper', 19 March 2014, p 2

Similarly, the ACCC stated:

*'Fixed-line telecommunications infrastructure in Australia, in particular access network infrastructure, has natural monopoly characteristics. That is, it is more efficient to have all customers served by a single infrastructure provider than to have multiple competing providers. In particular, the high and largely 'sunk' costs of investment in the most fundamental elements of telecommunications networks (e.g. ducts, pits, poles, copper, cable and fibre), low ongoing marginal costs, and economies of scale, scope and density, impose high barriers for new entrants.'*⁵

NBN Co acknowledges that in developing its subsequent Consultation Paper on Telecommunications Regulatory Arrangements, the Panel may not have had sufficient time to consider the extent to which there is industry consensus on the above issues. That said, the strong consensus on these important issues should guide the Panel's consideration of key aspects of the regulatory landscape and should also be considered when developing future consultation papers.

3 Response to issues raised by stakeholders

This section responds to a number of specific issues raised by stakeholders in their submissions which NBN Co believes are important to address.

3.1 NBN Co's business case – operation as a commercial entity

NBN Co wishes to address two submissions made in response to the Framing Paper that commented on the appropriateness of the Panel's working assumption that NBN Co will operate on a commercial basis. TPG argued in its submission that this assumption should be revisited,⁶ while Optus argued that NBN Co has prioritised its mandate to operate as a commercial entity, potentially at the expense of maximising the economic benefits and achieving key social objectives of the NBN.⁷

NBN Co recognises that balancing its commercial objectives with its wider social objectives will be challenging and will at time involve trade-offs. This does not, however, detract from the importance of the assumption that NBN Co will operate on a commercial basis. To the contrary, NBN Co's ability and mandate to operate as a commercial entity will ensure that NBN Co will deliver, cost-effectively, the types of wholesale layer 2 broadband services that are required by access seekers in order to meet end-user demand. Furthermore, it is important that NBN Co faces the appropriate commercial incentives to respond to ongoing changes in technology and to make investments, including to maximise its own efficiency and productivity. Finally, NBN Co's ability to efficiently achieve its social policy objectives (such as the provision of fixed line infrastructure in high-cost-to-serve locations) is central to minimising the cost of the NBN to taxpayers and society overall.

In asserting that the Panel's working assumption that NBN Co will operate on a commercial basis *'may be unrealistic and should be revisited'*, TPG argued that NBN Co's business case is not significantly threatened by TPG's proposal to extend its fixed line network in Brisbane, Melbourne and Sydney to compete directly with NBN Co (or indeed by any similar proposals made by other infrastructure providers).⁸

NBN Co strongly rejects TPG's arguments in this regard, which appear to be intended to divert attention from TPG's own plans. It is common sense that TPG's plans for a FTTB rollout to approximately 500,000

⁵ ACCC, 'ACCC submission to the *Independent Cost Benefit Analysis Review of Regulation* first issues framing paper', 14 March 2014, p 4

⁶ TPG, 'Review of Regulatory Arrangements for the National Broadband Network Regulatory Issues Framing Paper: Submission of TPG Telecom Limited to Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network (Vertigan Review Panel)', p 2

⁷ Optus, 'Regulatory Arrangements for the National Broadband Network: Regulatory Issues Framing Paper', March 2014, p 4

⁸ TPG, 'Review of Regulatory Arrangements for the National Broadband Network Regulatory Issues Framing Paper: Submission of TPG Telecom Limited to Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network (Vertigan Review Panel)', p 2

premises will adversely affect NBN Co's business case by reducing the revenues that NBN Co receives from high-value customers residing in the low-cost areas of Brisbane, Melbourne and Sydney. In turn, this will adversely affect NBN Co's ability to deliver on its social policy objective to facilitate the provision of high-speed broadband at affordable prices to all Australians regardless of where they reside. This outcome is not controversial, and was recognised in several submissions responding to the Panel's Framing Paper, including those of the ACCC, Treasury, iiNet, Macquarie Telecom and NextGen. In particular, the ACCC stated:

*'where NBN Co faces competition, its ability to compete on price may be constrained by broader objectives... under certain scenarios, infrastructure-based competition could lead to price competition only in certain geographic areas (e.g. low cost areas)...potentially erod[ing] the funding base that may be available to support a policy of internal cross-subsidies.'*⁹

In a similar vein, Treasury observed:

*'there is a direct link between infrastructure competition and the viability of the NBN project ... A smaller NBN Co network footprint would mean a smaller addressable market in low cost areas and reduced scale economies for NBN Co. This would have a negative impact on NBN Co's expected rate of return, potentially causing it to fall below the threshold for the Government's continued equity investment.'*¹⁰

Finally, NBN Co points to the expert report of Frontier Economics which accompanied the application for authorisation of the Optus HFC Agreement, which stated:

*'That uniform pricing obligations can be undermined by cherry picking activity is well recognised in the economic literature.'*¹¹

The more infrastructure competition NBN Co faces, including of the kind contemplated by TPG, the more severe the adverse impact on NBN Co's business case and its ability to deliver on its social policy objective of facilitating the provision of high-speed broadband at affordable prices to all Australians.

TPG also argued that NBN Co's business case is threatened by Telstra's wireless services, despite not being threatened by TPG's proposal to extend its fixed line network.¹² NBN Co rejects this claim, and note that TPG offer no evidence to support this claim in its submission. NBN Co's business case, as modelled in its Strategic Review and previous corporate plans, explicitly accounts for the potential impacts arising from substitution between fixed line and wireless / mobile services. In particular, the Strategic Review accounts for increases in wireless-only premises driven by increased 4G coverage and quality, while also accounting for the impact of increased demand for video services which cannot be served at low cost by such networks.

TPG raised concerns regarding the revenue Telstra earns under the Definitive Agreements with NBN Co, stating that through these arrangements, together with Telstra's backhaul, towers and spectrum, Telstra will be able to deliver wireless technologies to the vast majority of households in Australia.¹³ In respect of this issue, it is important to recognise the important benefits that flow from the Definitive Agreements so far as the implementation of the NBN is concerned; the agreements allow NBN Co to avoid the substantial civil works that would otherwise be required to lay pit and pipe infrastructure. NBN Co's Corporate Plan 2012-15 noted that, under the Telstra Definitive Agreements, NBN Co obtains access to higher volumes of Telstra

⁹ ACCC, 'ACCC submission to the *Independent Cost Benefit Analysis Review of Regulation* first issues framing paper', 14 March 2014, p 1

¹⁰ Treasury, 'Submission to the independent cost-benefit analysis and review of regulation for the National Broadband Network: Regulatory issues framing paper', 19 March 2014, p 9

¹¹ Frontier Economics, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus: an expert report prepared for NBN Co and Singtel Optus*, December 2011, p 39. This report cited, by way of example, Mark Armstrong, *Access Pricing, Bypass, and Universal Service*, AEA Papers and Proceedings, May 2001, pp 297-301

¹² TPG, 'Review of Regulatory Arrangements for the National Broadband Network Regulatory Issues Framing Paper: Submission of TPG Telecom Limited to Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network (Vertigan Review Panel)', p 2

¹³ TPG, 'Review of Regulatory Arrangements for the National Broadband Network Regulatory Issues Framing Paper: Submission of TPG Telecom Limited to Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network (Vertigan Review Panel)', p 2

infrastructure than was anticipated in the 2011-13 Corporate Plan, notably for Dark Fibre and exchange space. This resulted in higher Operating Expenditure for the period to FY2021 and beyond, offset by lower Capital Expenditure.¹⁴

3.2 A level playing field

In its submission, Telstra submitted that there should be a level playing field, such that if others are allowed to compete with NBN Co at the infrastructure level, so should Telstra.¹⁵ While the issue of infrastructure competition is a policy decision for Government, NBN Co encourages the early resolution of this issue. The extent to which NBN Co is likely to face infrastructure competition is a source of ongoing uncertainty for NBN Co, Telstra and the rest of industry and is rendering it difficult to make decisions on key commercial issues. Further, in considering this issue, NBN Co wishes to reiterate that, to the extent that Telstra is allowed to compete with NBN Co as a provider of fixed network infrastructure, this may have significant implications for Telstra's incentive as a supplier of network infrastructure to NBN Co which may, in turn, affect the efficient rollout of the NBN.

3.3 The scope of NBN Co's role

NBN Co's wholesale-only obligation

In submissions to the Panel, both Telstra and iiNet raised concerns about the scope of NBN Co's wholesale-only obligation, which is effected by restricting NBN Co to the supply of services to carriers and carriage service providers.

iiNet recommended that NBN Co's wholesale-only requirements be tightened, arguing that the requirement to obtain a carrier licence is unlikely to be an effective barrier to a large corporate entity looking to acquire services directly from NBN Co.¹⁶ iiNet recommended that NBN Co be restricted to selling services to carriers or carriage service providers on the condition that the buyer does not supply NBN services to end users in its immediate circle.¹⁷ Similarly, Telstra recommended that the right to directly acquire services from NBN Co be limited to the extent to which those NBN services are resupplied to downstream customers.¹⁸

NBN Co submits that the current regulatory framework is an appropriate and sufficient means of giving effect to its wholesale-only obligation. The definitions of 'carrier' and 'carriage service provider' are well understood within the industry and easy to apply. The restriction is working well in practice to preserve NBN Co's status as a wholesale-only provider. NBN Co notes that neither Telstra nor iiNet provided any evidence of (a) NBN Co providing services to parties that are not carriers or carriage service providers, or (b) large corporate entities inappropriately acquiring a carrier licence solely for the purpose of obtaining services directly from NBN Co.

Even where large corporate customers do purchase services from NBN Co for internal use – that is, not for retail purposes – NBN Co remains a wholesale-only provider, as its products are not sold in a form suitable for end-user consumption (except in a small subset of cases). Corporate customers that are prepared to meet the requirements of being a carrier or a carriage service provider are entitled to become a customer of NBN Co and to compete with other entities meeting those requirements, thereby increasing the level of retail competition in the market.¹⁹ Presumably it is this potential retail level competition that concerns Telstra and iiNet.

¹⁴ NBN Co Corporate Plan 2012-15, pp 10-11

¹⁵ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 3

¹⁶ iiNet, 'Panel conducting a Cost-Benefit Analysis and Review of Regulatory Arrangements for the National Broadband Network: Regulatory Issues Framing Paper: Submission by iiNet', pp 14-15

¹⁷ As defined in s23 of the *Telecommunications Act 1997* (Cth) and subject to certain carve-outs

¹⁸ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, pp 18-19

¹⁹ See NBN Co's comments to the Senate Environment and Communications Legislation Committee on 9 March 2011 in Sydney.

The issue of how NBN Co's wholesale-only obligation is effected is also raised in the Panel's Consultation Paper on Telecommunications Regulatory Arrangements. NBN Co also addresses this issue in section 6.4 of its response to the Consultation Paper.

Participation by NBN Co in competitive markets

NBN Co notes Telstra's assertion that there is a risk of 'mission creep' by NBN Co into competitive or potentially competitive markets. The submissions of both Telstra and Nextgen referred to the potential for NBN Co to provide a Cell Site Access Service (**CSAS**). Telstra described this as 'a distraction from [NBN Co's] mission',²⁰ while Nextgen asserted that it was 'outside NBN Co's remit'.²¹

NBN Co rejects these claims. NBN Co is developing a CSAS at the request of Government and some industry stakeholders. NBN Co's decision to do so is consistent with Government policy that:

*'Wherever possible, the Coalition will ensure that NBN Co assets such as towers or backhaul will be made available to carriers to facilitate improved services.'*²²

In November 2013, Parliamentary Secretary to the Minister for Communications, the Hon Paul Fletcher MP, stated:

*'Of course, NBN Co will have backhaul to all of the towers in its network. Under the previous government, however, it seemed NBN Co had little appetite to sell backhaul to mobile operators. We take a different view, and if NBN Co can make the economics work we will certainly not be standing in their way.'*²³

To date, NBN Co has only undertaken trials of this service, which commenced in late 2013. NBN Co has engaged in industry consultation about the type of products that may be developed from this trial in accordance with its Product Development Forum (**PDF**) obligations.

NBN Co submits that the provision of a CSAS by NBN Co would be an efficient and pro-competitive use of its infrastructure. NBN Co deals with this issue further in section 7.1 of its response to the Panel's Consultation paper on Telecommunications Regulatory Arrangements.

NBN Co to operate primarily at Layer 2

Telstra stated in its submission that formalising NBN Co's restriction to Layer 2 as an unqualified 'bright line' would safeguard against mission creep by NBN Co.²⁴ NBN Co notes that this issue is raised by the Panel in its Consultation Paper on Telecommunications Regulatory Arrangements. NBN Co has addressed this issue in section 6.8 of its response to the Consultation Paper.

3.4 USO and cross-subsidies

Several respondents to the Panel's Framing Paper (including the ACCC and Treasury) noted that higher cost (or 'non-commercial') geographic areas could be provided with affordable broadband services funded by a government subsidy to NBN Co, rather than an internal cross-subsidy within NBN Co's business.²⁵ Further, several submissions identified an alternative model for the funding involving a contribution from NBN Co's competitors to the funding of high cost geographic areas, in the form of an industry levy.

²⁰ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 18

²¹ Nextgen, 'Submission on the Vertigan Review Regulatory Issues Framing paper', March 2014, p 7

²² *The Coalition's Plan for Fast Broadband and an Affordable NBN*, April 2013, p 14

²³ The Hon Paul Fletcher MP, *Remarks at the launch of the Vodafone/McKell Institute Report, 'Superfast Broadband: The Future is in Your Hands'*, 6 November 2013

²⁴ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 16

²⁵ ACCC, 'ACCC submission to the *Independent Cost Benefit Analysis Review of Regulation* first issues framing paper', 14 March 2014, p 18; Treasury, 'Submission to the independent cost-benefit analysis and review of regulation for the National Broadband Network: Regulatory issues framing paper', 19 March 2014, p 9

As NBN Co noted in its previous submission, the achievement of the Government's objective that all Australians have access to affordable very fast broadband necessarily involves an element of subsidisation. NBN Co acknowledges that there are a number of different methods by which this objective can be achieved, of which an internal cross-subsidy is only one.

NBN Co's requirement to internally cross-subsidise higher cost geographic areas is a matter for Government policy. The previous Government instructed NBN Co to implement a policy of uniform national wholesale pricing (**UNWP**):

*'In support of the Government's objective of enabling uniform national wholesale prices, NBN Co will be required to charge access seekers uniformly for services across its network for all technologies and for the basic service offering.'*²⁶

While the Government's new Statement of Expectations issued to NBN Co on 8 April 2014 does not refer to an objective of UNWP, the Coalition's broadband policy of April 2013 stated that, under a Coalition Government, '[a]ny system of UNWP provided for in an NBN Co undertaking accepted by the ACCC will become uniform national wholesale price caps for directly comparable products'.²⁷ The Panel is now considering the issue of funding services to uneconomic end-users.

The submissions of Treasury and Opticomm, and the joint submission of John de Ridder and Robert James, recommended (in various forms) that higher cost geographic areas be funded by an industry levy (described by de Ridder and James as an 'excise tax'), rather than a cross-subsidy within NBN Co's business. Treasury stated that implementing such a fund would be challenging, but not impossible, and that such a fund would have similarities to the implementation of Telstra's Universal Service Obligation (**USO**).²⁸ Opticomm, and de Ridder and James, went a step further, arguing that such a fund should be implemented by revising the current USO arrangements.²⁹

NBN Co submits that, were the Government to adopt a policy involving a subsidy for higher cost areas funded through an industry levy, such an arrangement should be separate and distinct from the current USO arrangements, which do not fund NBN Co infrastructure. Rather, the current USO arrangements provide for universal access to a retail standard telephone service by designating Telstra as the universal service provider. The subsidy to Telstra in supplying services in accordance with its USO has essentially been funded by the industry, via the payment of the universal service levy currently coordinated by the government agency TUSMA.³⁰ As the USO provider, Telstra is subsidised predominantly for services provided over its copper network outside of the fixed network footprint of NBN Co. As these arrangements are not related to NBN Co infrastructure or the provision of superfast broadband services, they should be treated separately to any explicit subsidy of broadband services.

3.5 AVC and CVC pricing

NBN Co wishes to respond to the submissions of Optus, and of de Ridder and James, which addressed NBN Co's two part AVC/CVC pricing structure.

²⁶ Minister for Finance and Deregulation and Minister for Broadband, Communications and the Digital Economy, Statement of Expectations, December 2010, p 4

²⁷ *The Coalition's Plan for Fast Broadband and an Affordable NBN*, April 2013, p 8

²⁸ Treasury, 'Submission to the independent cost-benefit analysis and review of regulation for the National Broadband Network: Regulatory issues framing paper', 19 March 2014, pp 9-10

²⁹ OptiComm, Letter to the NBN Regulatory Review, 14 March 2014, p 9; John de Ridder and Robert James, 'Submission to the NBN Regulatory Review', March 2014, p 6

³⁰ Under the *Telecommunications Universal Service Management Agency Act 2012* (Cth)

Optus expressed a general concern that NBN Co has been afforded too much discretion in implementing the NBN, taking particular issue with NBN Co's two-part pricing structure. Optus stated that this structure is designed to attract customers by keeping access charges (AVC) low, while usage charges are charged at above-cost in order to maximise NBN Co's ability to make a commercial return. Optus submitted that '*the balance set between the AVC and CVC does not necessarily promote the interests of RSPs or end-users*', arguing that it '*locks end-users into the NBN, but penalises them in the long run as usage grows through excessive above-cost pricing*'.³¹ NBN Co rejects these claims.

NBN Co's SAU was accepted by the ACCC on 13 December 2013, after an extensive process of consultation involving the ACCC, NBN Co and industry stakeholders. It contains price controls which prevent NBN Co from raising its prices by more than CPI minus 1.5% in any year of the SAU period. NBN Co's prices will therefore decrease in real terms during the term of the SAU. The SAU also prevents NBN Co from recovering costs that are not prudently incurred. These restrictions provide significant price certainty, and incentivise NBN Co to operate and invest efficiently. In addition, the ACCC may initiate pricing reviews to rebalance prices if required (subject to revenue neutrality). In accepting the SAU, the ACCC stated:

'By placing restrictions on how prices may change over time, the SAU provides NBN Co with incentives to price services to encourage take-up of services and to increase revenue. Put another way, because NBN Co's ability to increase prices is limited by the SAU, it must increase demand for its existing services, or introduce new services, in order to increase its revenue. In addition, restrictions on how prices may change over time creates incentives for NBN Co to invest in the network efficiently because it will not be able to increase prices above the price controls to recover costs. This in turn provides an incentive for NBN Co to incur only efficient costs'.³²

De Ridder and James also addressed NBN Co's two part pricing structure, noting that NBN Co uses CVC pricing as a proxy for usage / traffic pricing (as outlined in NBN Co's Corporate Plan 2011-13). De Ridder and James recommended that NBN Co replace its CVC pricing model with usage pricing, arguing that the CVC model would not result in affordable entry level prices, and would therefore discourage take-up of and prevent ubiquitous access to the NBN.³³ This was argued to be the case despite an acknowledgment that NBN Co's pricing would not allow the recovery of costs in the early years of operation because of the high upfront investment in the network and low number of initial subscribers. The Initial Cost Recovery Account (**ICRA**) mechanism allows NBN Co to roll these losses forward to be recovered in later years when the investment in the network is much lower and the subscriber bases is much higher.

NBN Co rejects this argument, and submits that it is based on a fundamental misunderstanding of the purpose and effect of the ICRA, which is discussed further below. As stated above, NBN Co is subject to price controls which incentivise it to set prices to encourage take-up of services. This incentive is reflected in NBN Co's current pricing structure. The ICRA does not determine that pricing structure; rather, it is merely a mechanism for cost recovery in a context where prices are determined by reference to standards unrelated to the ICRA.

³¹ Optus, 'Regulatory Arrangements for the National Broadband Network: Regulatory Issues Framing Paper', March 2014, pp 4-5

³² ACCC, 'Final Decision: NBN Co Special Access Undertaking – December 2013', p 89

³³ John de Ridder and Robert James, 'Submissions to the NBN Regulatory Review', March 2014, p 3. See also pp 6-7

De Ridder and James go on to suggest that, to increase take-up of services, NBN Co should adopt a two part tariff, for example, an entry level plan of \$10 / month + \$3 / gigabyte (**GB**). The de Ridder and James' submission fails to acknowledge the role played by the pricing structure of retail service providers (**RSPs**) in driving end-user demand for broadband. In contrast, the demand for NBN Co's wholesale layer 2 service is a derived demand, based on demand for retail broadband and telephony services. NBN Co's pricing structure provides RSPs with a significant degree of flexibility to purchase and construct products for end-users, thereby facilitating retail competition. RSPs are not prevented from adopting a two part pricing structure should they choose – indeed, some retailers are already doing this. For example, AUSBB currently offers a pay-as-you-go service which allows end-users to pay a smaller monthly access fee, which includes the first 10GB, then a rate for each GB of data used.³⁴

Example 1 below illustrates how NBN Co's current wholesale product and pricing structure provides RSPs with a high degree of pricing flexibility to structure their retail prices according to their customers' needs. While the following case study is illustrative only, NBN Co submits that it directly calls into question de Ridder and James' understanding of NBN Co's SAU and its product and pricing structure.

Example 1: RSP pricing structure

This example makes the following assumptions:

1. The RSP serves a local customer-base in customer service area (**CSA**) consisting of 400 end-users. The customer base is comprised of:³⁵
 - 40 per cent high internet end-users that on average use 60GB of data per month. The remaining 60 per cent are low internet end-users that on average use 20GB of data per month.
 - 80 per cent of end-users subscribe to a broadband and voice bundle service. The remaining 20 per cent of end-users subscribe to a broadband service only.
2. The RSP purchases the requisite NBN Co product components on the price terms and conditions set out in our WBA.
3. The RSP sources requisite backhaul at \$15 per Mbps at 200Mbps.
4. The cost for IP transit is \$20 per Mbps.
5. The RSP incurs additional overhead costs of \$5 per month per service.

Based on these assumed market characteristics and cost inputs the RSP could profitably offer:

- a 100/40Mbps service that has a monthly access fee of \$40 per month and a data usage charge of \$0.50 per MB. The end user would have an option of bundling a voice service for a fixed fee of \$5 per month; and
- an entry level 12/1Mbps service that has a monthly access fee of \$20 per month and a data usage charge of \$1 per MB. The end user would also have an option of bundling a voice service for a fixed fee of \$5 per month.

Importantly, this pricing structure would be profitable for the RSP. NBN Co estimate that based on the above conservative cost input assumptions, and taking into account GST, the RSP would achieve a profit margin of approximately seven per cent.

³⁴ AUSBB, Critical Information Summary: NBN Optical Fibre – Residential, see <http://ausbbs.com.au/cms/staticpage/NBN-Pay-as-you-go-fixed-line-pricing>

³⁵ For comparison purposes ABS data suggests that the average monthly data download for fixed broadband in Australia is approximately 36GB per household.

3.6 Clarifying NBN Co's Long Term Revenue Constraint Methodology

This section describes NBN Co's Long Term Revenue Constraint Methodology (**LTRCM**), and responds to the assertion of de Ridder and James that the LTRCM does not facilitate low prices and will therefore lead to under-utilisation of the NBN.

The ICRA mechanism

The SAU allows NBN Co the opportunity to recover its costs over time (inclusive of an appropriate return on capital), but no more. This is set out in the LTRCM, which is consistent with the 'Building Block' revenue methodologies used by the ACCC and other regulators in a range of industries. The LTRCM incorporates an ICRA mechanism, which recognises the timing difference between when costs are incurred to build and operate the NBN and when revenues are received. The ICRA mechanism is intended to enable NBN Co to carry forward its initial unrecovered costs for later recovery.

The LTRCM is underpinned by the concept of an Annual Building Block Revenue Requirement (**ABBRR**), which represents a level of revenue that would allow NBN Co to earn an appropriate rate of return on its Regulatory Asset Base (**RAB**) and cover depreciation, operating expenditure and net taxation expenses. The definition of the ABBRR is based on the approach taken in most other utility industries (with some adjustments to account for NBN Co's circumstances), and allows an expected economic profit of zero in each year (after accounting for movements in the ICRA and RAB).

NBN Co's initial prices have been set at a level to facilitate migration from legacy networks to the NBN. This is expected to result in an initial under-recovery of NBN Co's annual costs (as measured by the ABBRR). To allow NBN Co the opportunity to recover its costs in the long term, its initial unrecovered costs are rolled forward in the ICRA, and a capital charge is applied to the balance each year. Thus, the initial under-recovery is capitalised, and essentially forms part of the overall capital base upon which NBN Co can earn a rate of return over time. Under this arrangement, subject to the price controls discussed above, NBN Co's actual revenues are allowed to grow over time and exceed the ABBRR, but only until the ICRA is extinguished. At that point, the LTRCM reverts to a more traditional 'building block' approach whereby NBN Co is subject to a revenue cap set with reference to the ABBRR.

It should be noted that the existence of the ICRA does not guarantee NBN Co will recover its initial costs in full; rather, it only provides an opportunity for NBN Co to do so. NBN Co is likely to face revenue sufficiency risk for an extended period of years, and the prospects for long term cost recovery will depend significantly on the eventual costs of the NBN rollout and the nature and extent of demand for NBN services over time.

Submissions of de Ridder and James

De Ridder and James acknowledge that the ICRA is a 'loss-capitalisation' mechanism designed to allow NBN Co to charge initial prices which are set lower than what is necessary to recover the ABBRR. As stated above, such prices are struck to facilitate migration to the NBN.

De Ridder and James advocate a system of usage / traffic pricing, to ensure that NBN Co's prices decrease over time, as traffic increases. They contrast this to the current scenario under which, they assert, NBN Co's prices will not decrease over time (or will decrease only slowly), due to the loss capitalisation facilitated by the ICRA. The asserted causal connection between the ICRA and prices which do not decrease over time (or decrease only slowly) is not fully articulated.

NBN Co rejects de Ridder and James' arguments. The SAU prevents NBN Co from raising prices by more than CPI minus 1.5% in any year in the SAU period. NBN Co's prices will therefore decrease in real terms (assuming the inflation rate is positive) during the term of the SAU – an outcome which is not related to the loss capitalisation facilitated by the ICRA. Rather, the ICRA is simply a mechanism which allows NBN Co the opportunity to recover its costs over time, by capitalising initial losses to form part of the overall capital base upon which NBN Co can earn a rate of return over time.

Were NBN Co not to use an ICRA mechanism, NBN Co would not be able to recover its costs in the long term. De Ridder and James appear to acknowledge this and, in consequence, canvass alternatives which would require some form of external subsidisation of the NBN.

While de Ridder and James do not expressly advocate a particular source of such subsidisation, they suggest that the Panel consider a scenario which removes the ICRA arrangements through 'balance sheet restructuring' – presumably a reference to either a direct Government subsidy, or asset write-down (the equivalent of a once-off Government subsidy).³⁶ De Ridder and James also consider alternative funding models such as debt and an industry levy or 'excise tax', although the latter option is largely discussed in relation to the subsidisation of services provided to 'non-commercial' customers (see above), rather than as a broader solution to subsidising the NBN. De Ridder and James state that in a scenario where higher cost or 'non-commercial' services are subsidised by an industry levy or excise tax, NBN Co would ideally set cost-based access prices to 'ensure efficient by-pass decisions by other network providers'.³⁷ De Ridder and James do not consider whether in such a scenario, it would still be necessary for NBN Co to set prices below cost prices to facilitate migration.

3.7 The role of industry bodies

A number of industry stakeholders including Telstra, Optus and Opticomm supported an industry-led model of rulemaking for the implementation of the NBN, recommending that responsibility for setting technical standards (such as end-to-end operational processes and systems interfaces) rest with an industry body such as Communications Alliance.

NBN Co submits that such a model would be a significant change from current regulatory practice, without sufficient evidence that it would be any more transparent than the existing arrangements, or that it would lead to outcomes that are proportionate, accountable or are in the long term interest of end-users. Were the Panel to recommend such a model, it would be important to ensure clarity regarding the roles, responsibilities and obligations of each participant and the consequences of failing to meet those obligations.

NBN Co is not a standard setter

In its submission, Telstra advocated for industry-based rules to be lodged with and enforced by the ACCC, removing NBN Co's role as a 'de facto standards setter'.³⁸ Communications Alliance called for greater clarity on the issue, without taking a position on the appropriate degree of industry-based self-regulation. It submitted:

'For the most part access seekers and NBN Co have worked effectively together within Communications Alliance to develop cooperative solutions to the many operational issues that have arisen...(however) At times there has been a degree of dispute over whether the industry-based self-regulatory functions of Communications Alliance – normally manifested in industry Codes, Standards and Guidelines – should be the primary path for decision-making on operational questions that will affect service providers and NBN Co alike.

*... The situation points... to the potential need for greater clarity as to how the self and co-regulatory frameworks that underpin the Telecommunications Act 1997 should apply in the NBN environment.*³⁹

Further, Communications Alliance observed that some broadband infrastructure providers have expressed concern about NBN Co's role in setting standards for implementing the NBN, referencing NBN Co's role in specifying and periodically adjusting the B2B specification, which defines the ways in which wholesale providers interact with access seekers to exchange operational information. Communications Alliance stated:

³⁶ John de Ridder and Robert James, 'Submission to the NBN Regulatory Review', March 2014, p 14

³⁷ John de Ridder and Robert James, 'Submission to the NBN Regulatory Review', March 2014, p 6

³⁸ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, pp 2, 9

³⁹ Communications Alliance, 'Vertigan Review Panel: Regulatory Issues Framing Paper: Communications Alliance Submission', March 2014, p 6

*'Competitive broadband infrastructure providers have argued that this gives NBN Co, by way of unilateral modification of the specification, the power to disadvantage competitors and put them in 'catch-up' mode until they are able to make commensurate changes to their own systems. Communications Alliance has raised with NBN Co the possibility of transferring ownership of the B2B specification back to industry – i.e. Communications Alliance – so that any future changes to it can be the product of industry-wide consultation and collaboration, with all players having equal knowledge of impending changes and consequent system requirements.'*⁴⁰

NBN Co agrees that Communications Alliance, access seekers and NBN Co have worked effectively to develop cooperative solutions on the majority of operational issues in respect of the NBN project.

Practical progress has to date been less advanced in respect of a limited number of more complex operational issues (including, for example, NBN Co support for end user transfer between service providers). The challenges encountered by the parties in respect of these issues cannot be simply attributed to NBN Co's role. NBN Co continues to work with Communications Alliance and its other member participants, to ensure there is clarity as to the relationship or interaction between Communications Alliance / industry outputs (co-regulatory instruments of various kinds) and the regulatory framework under which NBN Co currently operates, including the commitments made in NBN Co's Special Access Undertaking (**SAU**) and Wholesale Broadband Agreement (**WBA**). NBN Co agrees that it would be beneficial if parties had greater clarity in this regard. However, from NBN Co's perspective, the issue is more one of understanding and familiarity with the regulatory framework (including the SAU and WBA), rather than any structural problem in relation to the allocation of responsibilities as between NBN Co and Communications Alliance.

NBN Co acknowledges that its Business to Business (**B2B**) operational platform is an interface shared with its customers, and as such, should as far as is practical be based upon common and widely adopted processes and technologies. The Communications Alliance B2B interactions process requirements specification was developed by the Operational working group with participation from members (including NBN Co) and was published in December 2011. This specification provided an important basis for the development by NBN Co of detailed and implementable B2B specifications. In other words, while NBN Co acknowledges Communications Alliance's foundational work in this regard, NBN Co is now able to (and needs to) manage its own ongoing development of the B2B interface, directly with customers.

NBN Co has established a comprehensive set of consultation arrangements covering both operational process and technical aspects that NBN Co asserts are delivering good outcomes for all. Customers may participate in NBN Co's Operations Interaction, B2B Forums and PDF, and are provided with an opportunity to contribute to the on-going development and enhancement of the NBN Co B2B interface. NBN Co has a solid track record of addressing feedback to the satisfaction of customers prior to finalising each B2B specification update.

NBN Co recognises the importance of a standard-based B2B approach, as evidenced by the adoption of ebXML (Electronic Business using eXtensible Markup Language - widely recognised as 'best practice' for electronic message exchange) and close alignment to international standards for telecommunication operational processes. NBN Co undertakes extensive customer consultation through a variety of multilateral forums, which inform the B2B capability roadmap and related enhancements to NBN Co's B2B specifications. This approach is not unilateral in its nature. NBN Co ownership of the B2B interface and specifications ensures that any operational enhancement is co-ordinated across all operational channels to retain operating flexibility for customers, and importantly maintains a consistent end-user experience.

Finally, to ensure customers have the greatest flexibility for operational interaction, NBN Co supports a range of 'channels', including a web based portal and B2B gateway. B2B is only one aspect of the way NBN Co interacts with customers.

⁴⁰ Communications Alliance, 'Vertigan Review Panel: Regulatory Issues Framing Paper: Communications Alliance Submission', March 2014, p 8

The role of the regulator

Telstra submitted that traditional regulatory approaches '*cannot deliver the degree of flexibility and adaptability required for the transitional period, given the scale, complexity and required industry reach of migration*'.⁴¹ It reasoned that industry participants, rather than regulators, are best positioned to efficiently develop solutions to issues associated with migration.⁴²

In arguing for greater regulatory efficiency, Telstra has focused on the role of the ACCC. While this is perhaps not surprising, NBN Co questions how Telstra's proposal to implement an industry-led process of rulemaking for NBN implementation within a framework of Ministerial Principles would ensure that outcomes would be proportionate and accountable. An industry-led forum would consist of NBN Co customers and potential competitors that could well have strong incentives to impose obligations on NBN Co that may be inconsistent with the long-term interests of end-users, and more broadly, compromise NBN Co's own investment decisions and ability to achieve its objectives (including its social policy objectives).

Telstra states that the ACCC is not necessarily the most qualified body to make decisions on process-related issues, as '*many of the migration processes are largely of a technical, operational or process engineering character*'.⁴³ NBN Co questions whether Communications Alliance is necessarily better placed than the ACCC to assess and resolve such issues. While the work of Communications Alliance has been helpful to develop cooperative solutions on a range of operational issues, this work is of a simpler, more technical nature than the task assigned to the ACCC in directing, assessing (including relevant competition implications) and approving the rules regarding disconnection. Further, the Communications Alliance currently has no obligation to achieve a consensus or an 'industry-led' outcome, and yet, failing to produce such outcomes will cause uncertainty for industry and may also put NBN Co or Telstra in a position where they are unable to meet their regulatory and contractual commitments.

Finally, NBN Co draws the Panel's attention to the:

- extensive consultation undertaken by it as part of the development of its WBA and by the ACCC in relation to SAU. While these processes may have been initiated by NBN Co, industry had an extensive and ongoing role to play in their development. NBN Co considers that this was a successful process where the ACCC played an important and informed role;
- important role of NBN Co's PDF which will provide all access seekers (both collectively and individually) a voice in the development of NBN Co's future products and services. Importantly, the operation of the PDF is subject to the obligations set out in NBN Co's SAU which has been the subject of extensive and broad industry consultation, and accepted by the ACCC.

Firm-specific regulation

Telstra's submission raises concerns about the allocation of regulatory responsibility, arguing for an industry-led rulemaking process within a framework of Ministerial Migration Principles applying to all industry players in connection with the migration from Telstra to NBN Co.⁴⁴ Telstra contrasts this with the firm-specific regulation it is currently subject to, such as the ACCC's regulatory scrutiny of its Migration Plan and Required Measures. NBN Co notes that the current regulation of Telstra in connection with migration to the NBN reflects industry concerns about Telstra's market position and potential to undertake disconnection activities in a manner which could favour its retail arm.

While some individual regulatory processes are firm-specific in nature, this does not mean that the regulatory framework as a whole is firm-specific. To the contrary, the current regulatory framework is comprised of

⁴¹ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 10

⁴² Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 10-11. See also: Optus, 'Regulatory Arrangements for the National Broadband Network: Regulatory Issues Framing Paper', March 2014, p 10; and OptiComm, Letter to NBN Regulatory Review, 14 March 2014, p 6

⁴³ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 7

⁴⁴ Telstra Corporation Limited, Telstra's Structural Separation Undertaking and Migration Plan, 31 July 2011, pp 11-12, 19-20, 24-25

many individual regulatory processes that work together so that regulatory functions are allocated to those parties that are best placed to undertake that function. For this reason, in addition to firm specific regulation of Telstra, NBN Co is also subject to range of regulations which reflect the concerns of industry:

- NBN is required to supply products and services in compliance with obligations set out in Part XIC of the *Competition and Consumer Act 2010* (Cth) (**CCA**), including the Category B Standard Access Obligations (including the non-discrimination obligations). This has required NBN Co to develop a set of supply terms and conditions which meet the requirements of a standard form of access agreement. This function is appropriately allocated to NBN Co as opposed to any other party.
- The commitments in the SAU in relation to the development of supply and pricing of products (also implemented via NBN Co's standard form of access agreements). NBN Co is also subject to firm-specific regulation under the *National Broadband Network Companies Act 2011* (Cth) (**NBN Co Act**), and the Statement of Expectations, such as accounting separation obligations and line-of-business restrictions.

Accordingly, NBN Co considers that the current regime is appropriate and should not be replaced by the industry-led rulemaking process recommended by Telstra.

NBN Co supports the ongoing regulation of legacy PSTN services, including the ongoing operation of Telstra's equivalence and transparency obligations, until such time as Telstra has met its structural separation obligations. The obligations set out in Telstra's Structural Separation Undertaking and Migration Plan (including the Required Measures) are obligations which, in the most part, were developed by Telstra and lodged for approval with the ACCC. In assessing Telstra's proposed Required Measures, the ACCC is required to have regard to the following:⁴⁵

- (a) the costs associated with implementing the arrangements;
- (b) the effectiveness of the arrangements; and
- (c) the proportionality of what is proposed (which is to say, the relative costs and benefits of the arrangements).

3.8 Issues associated with migration to the NBN

Telstra's submission calls for a customer focused implementation of the NBN. NBN Co strongly supports this objective, and submits that this outcome will, in part, be achieved by continued enforcement by the ACCC of Telstra's equivalence and structural separation obligations for the duration of the transition to the NBN.

Achieving a customer focused implementation to the NBN

In relation to the achievement of a customer focused implementation of the NBN, Telstra's submission argues for greater focus on NBN Co's migration activities and less focus on Telstra's disconnection activities. While NBN Co acknowledges that there is room for further improvement in many aspects of its operations, it does not believe that Telstra has provided an adequate basis for concluding that Telstra's recommendations would result in an improved end-user experience or regulatory efficiency.

The fact that challenges have been encountered in implementing the existing arrangements does not necessarily mean that the solution is to seek to formulate and implement different arrangements, as this may increase the risk of delay without providing any certainty that the different arrangements would necessarily produce better outcomes. Some of the difficulties encountered to date, including those referred to by Telstra in its submission, can largely be attributed to the unavoidable complexity of the relevant tasks and the fact that the transition from an incumbent to a new network provider is unique and has not previously been undertaken in the telecommunications industry (or any other industry for that matter). There are, however,

⁴⁵ See Clause 28.2 of Telstra's Migration Plan

also areas where the performance of key industry stakeholders, including Telstra, can be improved. Some of these areas are addressed below.

End-users need an integrated end-to-end migration process

Telstra argues that there is an absence of a comprehensive framework allocating responsibilities between stakeholders, and that this has contributed to end-user migration processes which are incomplete, poorly coordinated, confusing and often resulted in a negative experience for end-users. NBN Co notes however that the current arrangements reflect the commercial agreement between Telstra and NBN Co. As noted by Telstra in its explanation material accompanying its Structural Separation Undertaking and Migration Plan:

'Telstra's Structural Separation Undertaking (SSU) and Migration Plan will form the regulatory foundation for the most significant restructure of the Australian telecommunications industry since competition was first introduced...

NBN Migration involves two different networks and two network operators. There is therefore no single 'end-to-end' network level process nor a single 'owner' of the process used in migration'.⁴⁶

The regulatory framework was subsequently built around the Definitive Agreements and explicitly addressed the 'disconnect-connect approach to migration' that the Definitive Agreements dictated. Telstra was a strong advocate of this approach on the basis that it '*enables wholesale customers to themselves coordinate connection of services to the NBN and the disconnection of services from Telstra's network in a way that maximises service continuity for end-users*'.⁴⁷ Consistent with this framework, Principle 8 of the Migration Plan Principles requires Telstra's Migration Plan to give wholesale customers autonomy in relation to migration decisions:

[that] to the greatest extent practicable, gives wholesale customers autonomy over decisions about the timing of disconnection from a separating network and sequencing of that disconnection with connection to the NBN Co fibre network to enable them to minimise disruption to the supply of carriage services when connecting to the NBN Co fibre network'.⁴⁸

As a consequence of this regulatory framework, both NBN Co and Telstra had a role in facilitating the migration of end-user from the legacy copper and HFC networks to the NBN. Specifically:

- Telstra as part of its Migration Plan, committed to develop a number of new disconnection processes (referred to as Required Measures) to be submitted to the ACCC for approval within six months of the Migration Plan being approved. Telstra acknowledged that each of the Required Measures must themselves comply with the Migration Plan Principles and be consistent with the Migration Plan.
- NBN Co's task has been to work with industry to develop services which meet the needs of RSPs and their end-users and to agree supply terms and conditions for the supply of those services to RSPs over NBN Co's fibre, wireless and satellite networks. NBN Co must do so in order to fulfil its shareholders' expectations and to meet its regulatory obligations set out in the CCA and the NBN Co Act.⁴⁹

Telstra has not yet fully met its obligations either, with consequential uncertainty and potential for confusion. For example, Telstra is yet to put in place a set of information ring fencing arrangements that have been approved by the ACCC to ensure that any information it receives from NBN Co cannot be commercially exploited by Telstra to give its retail business units an unfair advantage.

In addition, Telstra was formally directed by the ACCC to resubmit each of the five draft Required Measures that it lodged with the ACCC. Indeed, as highlighted by Example 2 below, Telstra preferred to develop Required Measures 1(a) and 1(b) independently of NBN Co's activities in relation to the development of its

⁴⁶ Telstra Corporation Limited, Telstra's Structural Separation Undertaking and Migration Plan, 31 July 2011, pp 3, 20

⁴⁷ Telstra Corporation Limited, Telstra's Structural Separation Undertaking and Migration Plan, 31 July 2011, p 23

⁴⁸ Telecommunications (Migration Plan Principles) Determination 2011, 23 June 2011, Part 3, Division 1, General Principle 8

⁴⁹ Accordingly, it is incorrect to suggest (as Telstra does at page 4 of its submission to the Regulatory Issues Framing Paper) that other participants in the migration process have 'no parallel regulatory requirements'.

pull-through activities. In doing so, Telstra chose not to participate in an 'end-to-end' process for developing an important migration process.

Example 2: Pull Through Activities

Section 5.1 of Telstra's Migration Plan commits Telstra to developing processes for Telstra to obtain relevant consents and releases from Telstra Wholesale customers associated with Pull Through Activities. A Pull Through Activity is described by Telstra as:

In the course of connecting a premises to the NBN Co Fibre Network, NBN Co or its installing contractor may physically remove one or more copper cable from a lead-in conduit (LIC) at the premises in order to 'Pull Through' the fibre optic cable which will be used to connect the Premises to the NBN Co Fibre Network.⁵⁰

Telstra chose to lodge Required Measure 1 in two parts, being:

- Required Measure 1(a): process for obtaining consents and releases from wholesale customers for NBN Co to use pull through during the connection process; and
- Required Measure 1(b): process for notifying wholesale customers that pull through exception events have occurred.

Telstra lodged Required Measure 1(a) in August 2012 and Required Measure 1(b) in November 2012. In lodging these Required Measures, Telstra argued that it has only a limited role in the pull through process – as a 'post-box' for obtaining certain consents and providing certain information to NBN Co and its wholesale customer that is providing services to the premises where the pull through was occurring.

In commenting on Telstra's draft Required Measures 1(a) and 1(b), NBN Co acknowledged that undertaking a pull-through was NBN Co's responsibility. However, NBN Co did not agree that Telstra was merely a 'post-box'. NBN Co noted that the Definitive Agreements assigned responsibilities to both Telstra and NBN Co as part of any end-to-end pull through process. For example, Telstra is required to provide information to NBN Co about whether all or only some of the active services being provided over a copper line are being migrated to the NBN.

Based on the concerns and feedback from Telstra Wholesale customers, the ACCC issued a Final Decision on 5 April 2013 directing Telstra to resubmit both Required Measures 1(a) and 1(b).

Noting that NBN Co's pull through processes were dependent on Telstra's Required Measures, NBN Co proposed to Telstra that, with the ACCC's agreement, Telstra and NBN Co undertake an end-to-end trial of the pull through process which would inform both Telstra's development of its Required Measures 1(a) and 1(b) as well as NBN Co's wider pull through processes. Despite some early conversations between Telstra and NBN Co about this issue, Telstra decided not to pursue this option.

Consequently, Telstra resubmitted Required Measures 1(a) and 1(b) on 16 August 2013, only to be directed by the ACCC to make further changes.

NBN Co also wishes to refute Telstra's suggestion that NBN Co's work to date has excluded stakeholders.⁵¹ NBN Co has consulted widely with industry in formulating its WBA and through its PDF processes. NBN Co also wishes to draw the Panel's attention to NBN Co's significant efforts in relation to facilitating the transition of over-the-top services such as medical alarms and EFTPOS facilities to the NBN. In particular, to ensure the smooth transition of these services to the NBN, NBN Co has set up the NBN Plug Bench and the Out of Area Test Support Service, which are discussed in Examples 3 and 4 below.

⁵⁰ Telstra Corporation Limited, Understanding Pull Through, July 2012, see <http://www.telstrawholesale.com.au/download/document/pull-through-pack.pdf>

⁵¹ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, p 2

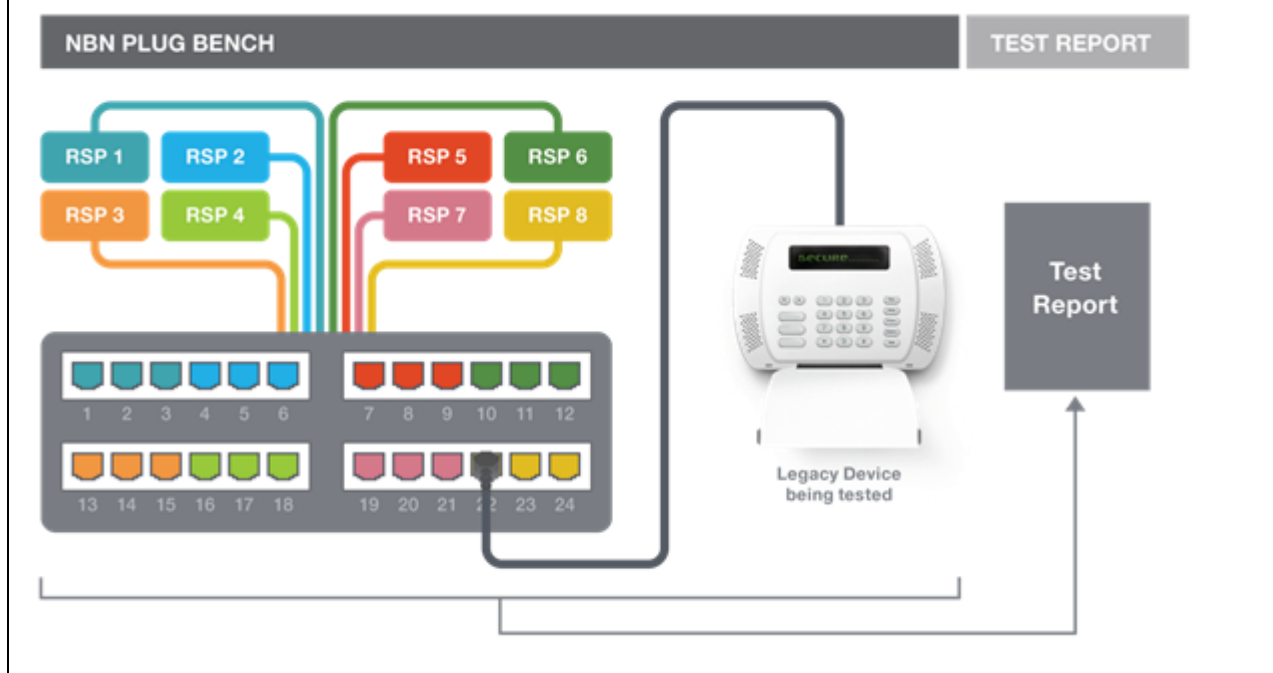
Example 3: NBN Plug Bench

NBN Co recognises the importance of legacy services such as medical alarms, security systems and EFTPOS and their continued operation over the NBN.

NBN Co has engaged a third party to establish a NBN Plug Bench facility to assist device manufacturers to gain insight into the operation of their devices over the NBN services of a Service Provider.

The NBN Plug Bench is a facility where application providers and device manufacturers are able to bring their devices and conduct interoperability for testing against all of the participating Service Provider's NBN telephony services. An application provider or device manufacturer who utilises the NBN Plug Bench is able to conduct their own interoperability testing with the participating Service Provider's telephony over the NBN. NBN Co and the participating Service Providers receive a copy of the device manufacturer's test report. Figure 1 below provides a conceptual illustration of the NBN Plug Bench initiative:

Figure 1: the NBN Plug Bench initiative



Example 4: The Out of Area Test Support Service

The Out of Area Test Support Service is a test service that NBN Co developed in response to a request from Telstra, and which was supported by other access seekers. This test service facilitates the testing of legacy over-the-top devices and services (such as medical alarms, security systems, EFTPOS devices and elevator phones) at an access seeker's own test centre which may be in a location outside of NBN Co's current fibre footprint. This service ensures that access seekers can test a range of services on the NBN in a live production environment, while at the same time managing issues of confidentiality and intellectual property.

Incomplete NBN Product Offering

NBN Co acknowledges that it is yet to develop a white paper in relation to Special Services. Importantly, these services will not be disconnected on the specified Disconnection Date for a given Rollout Region, as they are subject to an alternative disconnection regime agreed between Telstra and NBN Co as part of the

Definitive Agreements. Unlike NBN Co's PDF, the White Paper process is a bespoke product development process that was developed as part of the bilateral negotiations between NBN Co and Telstra.

Over the past two years, NBN Co has been developing Ethernet business capabilities to support the migration of most legacy business grade services to the NBN.⁵² In doing so, NBN Co has achieved considerable progress in developing the functionality needed to undertake the formal White Paper process required by the Definitive Agreements.

NBN Co's business capabilities allow RSPs to offer end-users a number of different traffic classes and a variety of speed tiers and extended levels of customer service support. As indicated in Table 1 below, these capabilities will support the migration to the NBN of the majority of legacy voice and data services currently available in the retail segment. Importantly, while NBN Co recognises that its existing suite of business products will not meet all of the performance requirements currently available for Special Services, many RSPs are able to use NBN Co's existing business capabilities to meet end-users requirements as valid go-to migrations to IP which in the past would have required a Special Service.

Table 1: Legacy Business versus NBN Co Business Ethernet Services

LEGACY PRODUCT GO-TO PATHWAYS TO NBN PRODUCT CAPABILITIES	Small Business				Medium Business				Large Business			
	1-19 employees				20-199 employees				200+ employees			
	TC-1	TC-2	TC-3	TC-4	TC-1	TC-2	TC-3	TC-4	TC-1	TC-2	TC-3	TC-4
	Now Available	From Q2 2014	From 2H 2015	Now Available	Now Available	From Q2 2014	From 2H 2015	Now Available	Now Available	From Q2 2014	From 2H 2015	Now Available
VOICE	PSTN	✓			✓			✓	✓			✓
	ISDN 2	✓			✓			✓	✓			✓
	ISDN 10/20/30		✓	✓			✓	✓		✓	✓	
DATA	ADSL				✓			✓				✓
	SHDSL		✓	✓			✓	✓		✓	✓	
	Direct Fibre (Low End)		✓	✓			✓	✓		✓	✓	
	Direct Fibre (High End)						✓	✓		✓	✓	

3.9 Greenfields

Several submissions to the Panel in response to the Framing Paper addressed the issue of whether new developments raise particular structural regulatory issues. NBN Co wishes to respond to three of those submissions, being the submissions of Opticomm, the Property Council of Australia, and Telstra.

Submissions of Opticomm

NBN Co wishes to address a number of the key issues highlighted by Opticomm in their submission. The following discussion uses the same numbering as the OptiComm submission.

Issue 1: *developers have no experience or desire to design and build pit and pipe*

This statement is not consistent with NBN Co's experience over the past three years. To the contrary:

- the development industry has over the last three years developed this capability (including as a result of NBN Co's ongoing awareness raising activities). In particular, developers leverage consultants, who currently offer design and construct packages for pit and pipe facilities.
- tier 1 contractors such as Visionstream and Servicestream are also widely utilised to conduct this work for developers (particularly the major developers).

⁵² NBN Co's Business Services were launched in September 2012. NBN Co's Medium Business Services will launch in April 2014.

Furthermore, NBN Co understands that many developers are happy with the current arrangements for the design and build of pit and pipe. A key advantage of the current arrangements for developers is that they do not need to rely on third party contractors to attend the site prior to them closing their trenches.

Issue 2: *developers are being charged between \$800 and \$1500 per lot by contractors to design, construct and warrant pit and pipe NBN Co specified pit and pipe.*

NBN Co notes that OptiComm provide no evidence to support its statement.

Feedback from developers that have contracted with NBN Co suggests that the cost per premise ranges from \$600 to \$1000 per lot. Of course, the actual amount in individual developments depends on volume as well as location. Developers that apply to NBN Co appear to be comfortable contributing to a component of the network build such as pit and pipe / pathways.

Issue 4: *developers have been designing and constructing pit and pipe to the industry approved and accepted G645:2011 guidelines and not to the specific NBN Co specifications to reduce cost. This has resulted in higher costs to NBN Co as it needs to 'augment' the pit and pipe to accommodate its network.*

NBN Co has two comments in response to this statement by OptiComm:

- First, NBN Co believes that OptiComm is overstating the differences between NBN Co's specifications and the G645:2011 guidelines. NBN Co specifications do not support certain items contained within the G645:2011 guidelines – this is consistent with the position of other carriers regarding the guideline. Further, the G645:2011 guideline acknowledges that '*the developer shall engage with a Carrier at the design stage to incorporate Carrier specific requirements*'.⁵³
- Second, NBN Co's experience to date is that less than one per cent of its pipelines have failed to meet NBN Co's standards. Further, NBN Co does not provide certification of the pit and pipe unless the developer undertakes remediation at their own cost.

Issue 5: *developers have to warrant the pit and pipe for 12 months after the transfer of the infrastructure to NBN Co even if damage is caused by third parties like builders or suppliers.*

This is incorrect. While NBN Co's Developer Agreement requests the developer to warrant the pit and pipe for 12 months for any defects, once practical completion has been certified any damaged network that is not the fault of the developer is rectified by NBN Co.

Opticomm also recommends that NBN Co reopens tenders for the Build Operate Transfer (**BOT**) partners to facilitate a more cost effective roll out and timely delivery of network in new developments. NBN Co does not believe this is necessary at this time. In particular, NBN Co has no current reason to believe that reopening its tender process for additional BOT partners will result in additional partners that are able to scale appropriately and meet the demands of the industry. Instead, running an additional tender process is more likely to add cost, complexity and uncertainty to existing arrangements.

Submissions of the Property Council of Australia

The Property Council states that there have been significant delays in connecting new property developments into the broader NBN network. While NBN Co acknowledges that it has faced challenges in new developments, it notes that since beginning the rollout from a standing start in January 2011, NBN Co has substantially stabilised its rollout in new housing estates across Australia from not only a cost

⁵³ Communications Alliance, 'G645:2011 Fibre Ready Pit and Pipe Specification for Real Estate Development Projects', December 2011, p 10

perspective but also from an 'on-time delivery' perspective. This has resulted in over 35,000 connected customers and over 90,000 lots/premises where services are available.

The Property Council recommends that NBN Co remove the on-going developer liability for pit and pipe infrastructure built to NBN Co specification. In making this recommendation it argued that:

'it is the view of industry that there is a strong oversight from the NBN Co to ensure the standard of pit and pipe infrastructure'.⁵⁴

NBN Co has three comments in respect of this recommendation:

- As noted previously, NBN Co's Developer Agreement has a reasonable defect liability period of 12 months. Further, once practical completion has been certified, any damaged network that is not the fault of the developer is rectified by NBN Co.
- NBN Co currently inspects pit and pipe infrastructure within 20 days of notification of practical completion. NBN Co works closely with the contractors of developers to ensure the pit and pipe can be certified, thereby assisting developers in obtaining their statement of compliance as quickly as possible.
- NBN Co has dedicated resources in every State to assist developers and consultants and house designers in the design and construction of pit and pipe infrastructure. As a consequence, over the past three years NBN Co has developed a strong working relationship with these stakeholders. However, NBN Co does not consider it to be reasonable for its oversight-type activities to be relied upon to the exclusion of appropriate and reasonable contractual defect liability arrangements.

Submissions of Telstra

Telstra raised a number of concerns about potential changes to the provision of network infrastructure in new developments.⁵⁵ In particular, Telstra has proposed an alternative framework in which:

- new developments are served by non-NBN Co networks of limited geographic scale; and
- NBN Co would be required to provide a national access service using network inputs from each of these individual networks.

NBN Co submits that this framework would be costly, complex and subject to a high risk of inefficiency. The requirement for NBN Co to contract with many individual network operators, potentially using different technology platforms and standards, would drive cost and complexity into NBN Co's business operations. Further, NBN Co would potentially become a purchaser of monopoly network inputs. Absent effective cost-based regulation of each of the individual networks in new developments, such a scenario runs a high risk of double marginalisation, which is inconsistent with the long term interests of end-users. In addition, any regulation of the individual networks would need to be consistent with any regulation of NBN Co's layer 2 products and services, which ideally should be consistent with retail level regulation such as the USO, the CSG and any retail price control regulations (so long as those retail level arrangements remain unchanged).

⁵⁴ Property Council of Australia, Letter to the NBN Regulatory Review, 14 March 2014, p 3

⁵⁵ Telstra, 'Submission to the NBN Panel Regulatory Issues Framing Paper', 17 March 2014, pp 23-24