

# Senate Select Committee on the National Broadband Network

## Submission

C-COR Broadband  
30 March 2010





## **Abstract**

The exposure drafts of the National Broadband Network Companies Bill 2010 and Telecommunications Legislation Amendment (National Broadband Network Measure - Access Arrangements) Bill 2010 suggest that NBN Co will be allowed operational flexibility to deliver retail services to customer groups at its choosing and price; this does not provide for a fair and competitive Wholesale Open Access environment. In advanced markets around the world we see healthy competition which does not rely upon government owned wholesale network for them to function. NBN 2.0 is a grand vision that needs an overly complex and distorted industry structure to survive. The NBN Co has to become a state run monopoly fixed broadband provider in an unfair, un-competitive and severely limited Wholesale Open Access environment to mitigate financial ruin. The interim Bills fail to fix the core government and regulatory failings from the 1990s; the failure to deliver fixed broadband infrastructure competition in a Wholesale Open Access environment. To provide a fair and competitive Wholesale Open Access environment regulation needs to be technology neutral and non-discriminatory across platforms. The Bill will create a new state-run monopoly provider to replace the original privatised Government telecommunications company: a sum zero game.

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30<sup>th</sup> March 2010

The Senate  
Australia Parliament House  
Canberra ACT

## **Submission to the Select Committee on the National Broadband Network**

Senators

Thirteen months ago we presented our first submission to the Select Committee in which we outlined in some detail the flaws and failings of the Australian regulatory environment. We also outlined an alternative industry structure that included existing cable networks to fast track cost effective, high performance broadband delivering video-centric bandwidth entertainment services to some 7 million Australians, with the rest of the country to follow with superfast broadband on the new NBN. C-COR Broadband has also made a submission to the Department of Broadband, Communications and the Digital Economy on regulatory reform dated 3 June 2009.

Under its current and proposed regulatory environment and industry structure Australia is being left behind by the rest of the world which is shifting its thinking in terms of just delivering superfast internet access (the 100Mbps download experience) to delivering performance based high-bandwidth entertainment services (interactive video-centric services): the penny has dropped in the collective minds of service providers outside Australia that the next generation access networks will be cost justified on delivering interactive video-centric experiences, not just superfast internet.

Whilst we are a strong advocate of a higher profile for the lamentably under-marketed cable industry in Australia as a real competitor of the first iteration of the NBN – the Fibre-to-the-Node vision (NBN 1.0) – we have also spoken positively and publically about shifting the focus of the industry's physical infrastructure towards fibre.

C-COR Broadband continues to publically advocate the benefits and expose the myths propagated about cable broadband networks in Australia by its detractors: we have reminded the Government that these broadband assets are already delivering high quality broadband services and are in easy reach of some 7-million Australians today but because of the current regulatory environment and industry structure nothing has changed in the cable industry - no substantive investments have been made and no service improvements to business and residential customers delivered.

The motivation for this second submission to the Select Committee is centred on concerns relating to the exposure drafts of the National Broadband Network Companies Bill 2010 and Telecommunications Legislation Amendment (National Broadband Network Measure – Access Arrangements) Bill 2010.

C-COR Broadband has no reservations about the consumer safeguard measures included in these Bills.

## **We are however disturbed by the proposed new business model for the NBN Co.**

In advanced markets around the world we see evidence of healthy competition and improving services delivery for business and residential broadband consumers, markets which do not rely upon a government owned wholesale network for them to function effectively or efficiently but a robust Wholesale Open Access environment. The UK's OFT (Office of Fair Trading) - Government in Markets: a guide to policy makers, 2009 publication acknowledges that the natural process of market competition best serves individual choice and drives productivity and economic growth.

Contrary to good competition principles, these Bills suggest that NBN Co will be allowed operational flexibility to deliver retail services to customer groups at its choosing and price. It postulates that the NBN Co business model will be tenuous for several years and NBN Co will find winning retail customers an attractive option to improve its financial operational performance: this is a natural organisational intent – but what is different and an improvement to the current Telstra monopoly model? Are we going back to the future?

Already, we see that the Government's intent for NBN Co is to minimise its cash investment as a shareholder by providing NBN Co the legislative clout to diversify and expand its source of funds: and in taking this course of action to become vertically integrated just like its larger rivals and in the process destroying its smaller rivals: this does not encourage a Wholesale Open Access environment but delivers a Wholesale Closed Access environment: big business and big government rule again!

Another disturbing factor is the technology architecture for NBN Co, which is predicated on an expectation that the required technologies can be developed in a short time. Delivering Internet Protocol (IP) services across several domains – retail provider, network provider, and infrastructure – as Layer 2 Ethernet services, which are not mature technologies, is a large scale risk in the proposed Australian environment.

OFCOM, the UK regulator inferred this when supporting the desirability of delivering Ethernet Active Line Access (ALA). OFCOM identified Ethernet ALA as a wholesale input to enable competition and innovation between service providers using Next Generation Access networks. Their position, which may have been updated recently, recognises that a fully functional Ethernet ALA service architecture has yet to be developed by the pertinent standards' bodies, vendors and regulators: in summary there are no industry standards at this time.

The single, most visible reason why the current and second iteration of the NBN – Fibre-to –the-Premises (NBN 2.0) will fail is because its singular intent is to deliver a particular technological solution to solve a regulatory issue that has been ignored since the early 1990s: an issue that has never been addressed by successive Governments and Regulators: today both the Regulators and Government seek to use technology to fix this systemic flaw and in the process create an inflexible government owned network that reminds us of the grand central planning decisions of discredited Eastern European countries in the 1950's. It's a brave move.

Only when we develop and move towards a third iteration of the NBN (NBN 3.0) will we succeed: this vision of the NBN will be based on the delivery of superfast broadband entertainment 'services outcomes' (interactive video-centric services) for business and residential customers. Implicit in NBN 3.0 will be the acceptance that vertically integrated network operators deliver the most consistent customer experience. It will be based on EU policy advice that regulations need to be technology neutral and non-discriminatory across platforms.

Wireless broadband, cable, and FTTP PON are all **shared media infrastructures**. All share broadband bandwidth to the available, connected users, or active users, at a point in time.

Submission to Department of Broadband, Communications and the Digital Economy  
3 June 2009

Australia requires consumer safeguards but it also requires a regulatory environment that encourages investment in infrastructure to deliver competitive advantage.

In the public domain overseas we read that Virgin Media is winning: its customers are happy, growing and it has a profitable business. It competes with the dominant incumbent, namely BT plc, and delivers broadband entertainment services in a severely depressed economic environment, utilising under-ground cable networks. They are not alone. We see other cable operators in Korea, Japan, Canada and the USA growing and prospering without government intervention of the type proposed here in Australia.

This Submission was started by the author whilst in the Philippines and was completed in India: our business has to invest resources in servicing these prospering markets outside Australia to grow Australian jobs and protect our business from decimation by under-investment in broadband infrastructure in Australia.

These countries have a positive investment disposition: to reach its political goal of accelerating the growth in broadband adoption the Government of India is considering introducing a bounty for each new wireless broadband connection. Why? The government accepts the proposition that broadband growth is linked to economic growth and improvement of social outcomes.

Today, C-COR Broadband is promoting Next Generation Cable architecture to cable operators overseas. We are promoting new innovations to deliver traditional Pay TV and 'Over-the-Top' content to cable operators and ISPs for one simple reason: their business models are converging. Below is a chart to diagrammatically represent this transformation.

## Video Delivery Trends

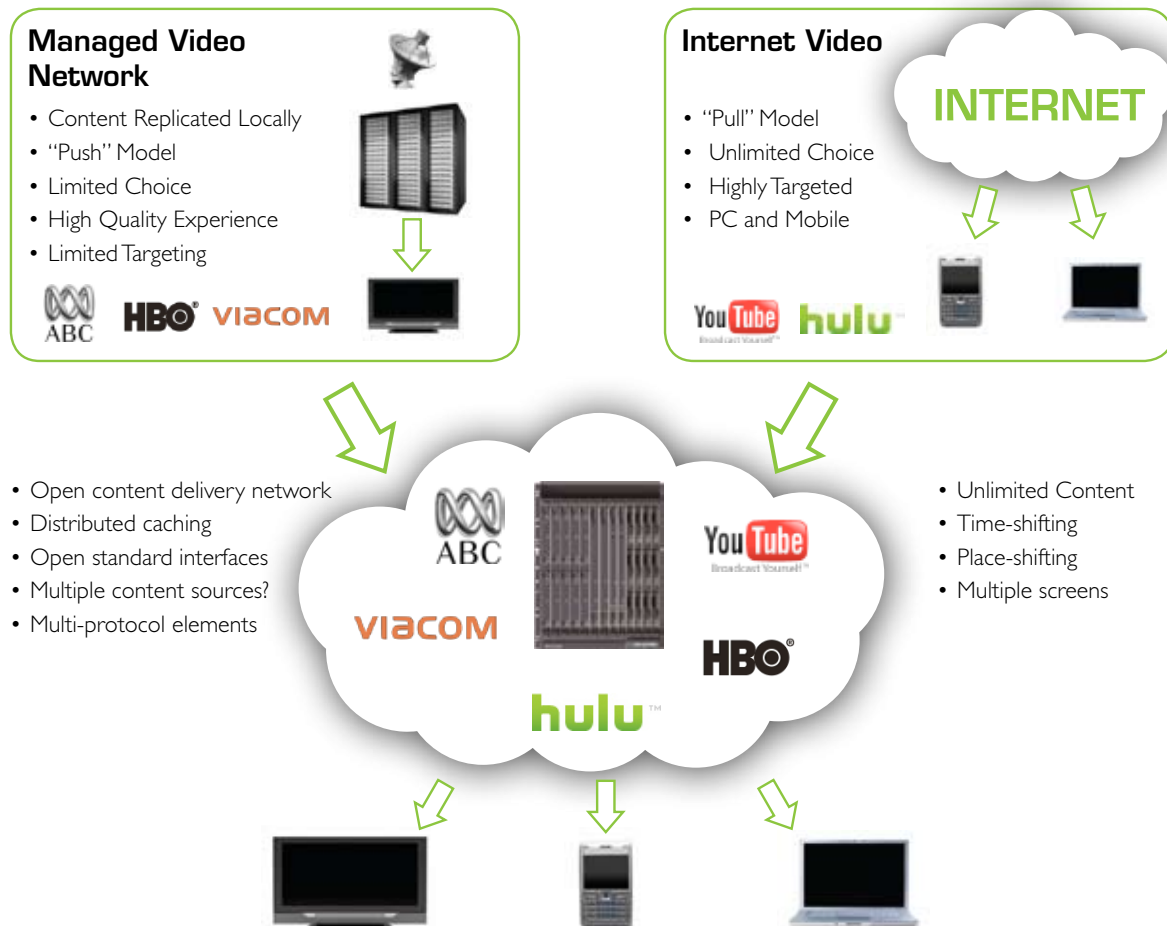


Chart 1: The worlds of the Cable TV and ISPs are converging.



It may surprise Senators, but we don't have this dialogue in Australia because the fixed network broadband industry environment is non-conducive to innovation and creativity.

We recognise that in Australia the natural builder of FTTP is Telstra, the largest owner of fixed telecommunications infrastructure. It is not the Government. Yet, we also recognise that this structure would not work as we would want. Customers don't have real choice because of Telstra's monopoly position. They have sporadic choice where carriers have built infrastructure be that wireless access or fibre in city centres and in leading green-field residential estates.

If the inherent capacity of existing cable broadband networks were to be unleashed and accepted as a formal part of the industry structure, retail service providers could get choice in wholesale transport networks and mobile operators could get another real choice for wholesale transport. Instantly, 7-million Australians would have real fixed broadband choice.

Let's be really simple. Today Australians have little or no choice for connection of fixed broadband services unlike their mobile broadband connection where real competition and hence choice exists.

Australia's fixation on Local Loop Unbundling (LLU) has distorted broadband business case modelling: it is cheaper to rent copper services than connect customers using the retail service providers' capital budget. This same anomaly also applies to the existing cable broadband assets: it is cheaper to use the subsidised LLU assets than drop a new HFC cable (underground or aerial) connection to a premise.

We can fix this issue very quickly and it's pragmatic. A Government sponsored \$200 bounty for each new broadband service – defined as an average user experience of 50Mbps downstream – connected, will stir the market.

We note that here that broadband experience should be based on measurable average download experience rather than peak – 'as if they are the only one on the network experience'. In time, we can shift the goal posts to 100Mbps.

The underlying momentum needed to sustain a healthy market is energised by scale and real market choice: which is not where we are today. We could envisage a \$250m Australian Broadband Guarantee fund generating something like 1,250,000 new superfast broadband connections in business parks, new residential estates and brown-field suburbs. Not that long ago, Telstra made a sharp downward price adjustment and consequently drove up the demand for ADSL services. Likewise, a similar government sponsored Australian Broadband Guarantee program would change market dynamics.

Around Australia, Australian's small-medium businesses and households suffer from a lack of physical connectivity choice.

As an independent Australian business supporting the cable broadband industry we can speak passionately about the need for change. Not being the sales office for an international company does give us a great degree of freedom.

C-COR Broadband may be Australia's largest significant cable broadband industry support base and duly biased, but with our knowledge and widespread experience we can play a positive part in the debate about selecting the best and most effective solution to Australia's need for real fixed broadband choice for customers to deliver economic growth and support services delivery and social change.

The cable broadband network assets in Australia are located both underground and aerial on electricity poles: they already deliver voice, entertainment and data services today and are severely under-utilised. The evidence suggests that they have been intentionally overlooked by the Government and the Regulators. In like markets beyond our shores they deliver real choice for customers; they deliver real competition to copper and fibre-based operators - be they privatised government or private telecommunications' operators.

The Government needs to resolve years of intransigence. We suggest that the Select Committee and the Government focus on removing impediments to choice, improve consumer safeguards, and address the core industry structural issues by creating a Wholesale Open Access environment?

Rather than creating an NBN Co that has to win retail business in direct competition with an established telco or become another existing vertically integrated telecommunication, wireless operator, or a cable operator in order to survive, it would be much more effective to focus on policy settings that encourage private investment in fixed broadband access to give choice.

NBN Co's real role may then turn out to be one of stimulating competitive intra-metro and inter-provincial city backhaul if for no other reason than it can deliver credible services and competitive scale to challenge Telstra.

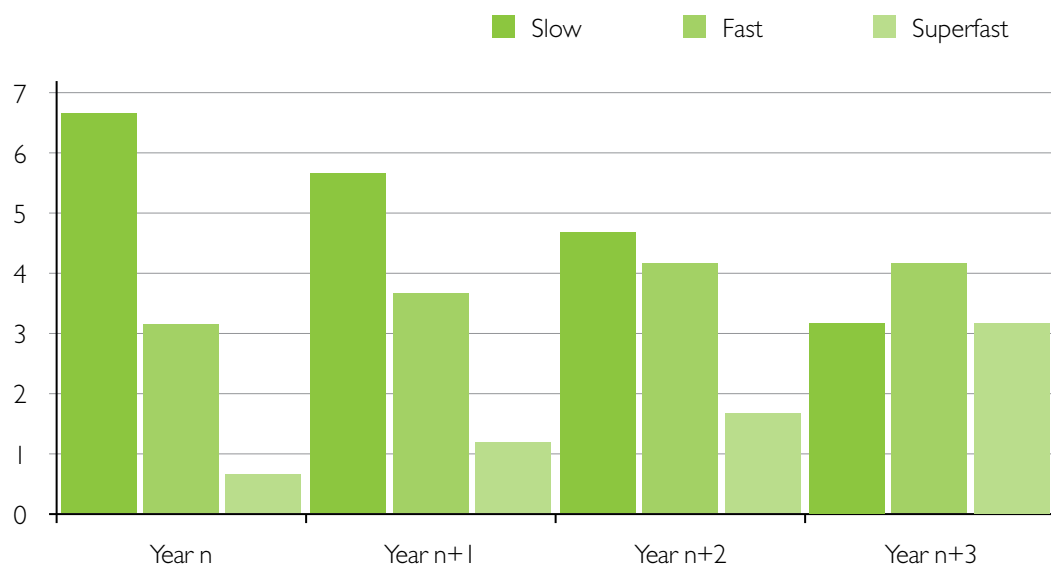
The longer this saga goes on the more we are convinced that Cable is the real challenger to the NBN on choice: cable has the under-utilised resources to reshape the landscape and to shift competitive momentum.

In Europe, Cable is a recognised Next Generation Access (NGA) architecture: this is well understood. Cable has dramatically increased the broadband speeds for its European consumers and business and has challenged its competitors to do better. It can do the same for Australians if we consider its infrastructure a part of the formal industry structure.

OFCOM (Office of Communications, UK) recognises the investment by Virgin Media in reaching 95% of their customer base with superfast broadband is consistent with its objective for Next Generation Access.

We suffer from a lot of misleading information including the unsubstantiated statement that we'll get massive adoption of 100Mbps to each and every household and business in Australia. The rest of the world's experience tells us that the reality will be somewhat less than this especially so if the price reflects the real costs of network deployment, capital funding and underwhelming customer adoption. In all advanced markets around the world we see customer adoption following a bell curve distribution with a heavy bias to the lower prices end of the spectrum.

## Broadband Adoption



In Australia heavy consumers of superfast, high performance bandwidth and entertainment oriented content will be in the minority for the medium term. Indeed, we can anticipate that 15-20% of the target market won't ever take up any of this fixed broadband offer even if it was subsidised by the Government. Unfortunately, the NBN Co won't be able to fight this particular reality. Its business case will fail unless it is created as a monopoly state-sponsored broadband provider and heavily subsidised; a sum zero game

We believe the Government and the Regulator's position should support a technology neutral Wholesale Open Access environment.

In our view Australians will increasingly embrace video centric entertainment services, an environment in which NBN 2.0 has a somewhat limited life.

We eagerly wait for NBN 3.0.





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Issued: March 2010