

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

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## **Overview**

*To date, there is very limited evidence of any distinct social or economic benefit on any significant scale from fibre provision to individuals' homes. Today, there are virtually no services that can only be delivered over fibre-based broadband. But fibre is regarded as essential for future-proofing*

**"Fibre: the socio-economic benefits - A Study for the FTTH Council Europe"**  
**Charlie Davies, Senior Analyst, Ovum November 2008**

It is now more than three months since the government announced the \$43 billion fibre to the home National Broadband Network (NBN) and the policy has generally been welcomed as visionary and an essential reform to the Australian telecommunications market.

But the uncritical acclaim that has met the announcement suggests a distinctly Australian perspective on telecommunications policy and the regulation and industry structures needed to enable the rollout of Next Generation Access Networks that are central to the delivery of high speed broadband. There is no international precedent for a national FTTH network nor is there any precedent for a large scale wholesale only network.

Nevertheless the government believes it can achieve a commercial return on the \$43 billion network and that the return will be sufficiently attractive to secure 49% private sector participation in its construction phase and offer such long term returns that it can be fully privatized at a later date.

Again this confidence defies international understandings. An exhaustive study of the economics of fibre deployment in six major European markets undertaken in 2008 for the European Competitive Telecommunications Association (ECTA) by the WIK institute found there was no commercial case for a national rollout of FTTH in any of those markets. That same study found that incumbents were better placed to deploy FTTH and could achieve 15% savings on the costs of an FTTH rollout undertaken by an entrant to the market.

Despite these realities few of the submissions to the recent discussion paper "Regulation for 21<sup>st</sup> Century Broadband" offered any critical perspective. The submissions from or on behalf of Telstra's competitors lauded the government for its vision and restated their views outlined in the earlier regulatory consultation that structural separation of FTTx networks was a precondition to their success and essential to the future of competition in Australia.

Indeed in their responses to the paper, which also canvassed options for the immediate reform of Telstra, Telstra's competitors, and somewhat surprisingly the Australian Competition and Consumer Commission, went beyond the options set out by the government and called for the immediate structural separation of Telstra.

Such calls for deny the international experience where no incumbent has been

subject to structural separation and no government or regulator in any peer market is considering structural separation of the incumbent. International experience also suggests that even the government's preferred option for reform, functional separation is finding little favour. The European Union has watered down its initial enthusiasm for functional separation and it is now offered as a measure of last resort to be used at the national regulators discretion and few European regulators have shown any interest in the concept. And in the UK the undertakings given by British Telecom in 2005, which led to its functional separation, are being wound back leading commentators to ask whether functional separation as it was understood will continue to apply.

In reality the two legs of government policy, the rollout of a wholesale only FTTH network and the immediate structural reform of Telstra, are utterly uninformed by international precedent, understanding or experience. This suggests that policy formation in Australia has effectively become a closed loop where the complaints of Telstra's competitors form the dominant, if not the only voice that is being heard.

The danger in basing policy on these complaints lies not merely in the fact that many of them are self serving and unsubstantiated but because Telstra's competitors have short term goals and interests that conflict with the long term horizon needed for investment in any form of fibre technology and or indeed any major upgrade of the national telecommunications network. Consequently in listening to Telstra's competitors and by effectively precluding Telstra from upgrading the national network to deliver high speed broadband, the government's policy is marked by tensions if not complete contradictions.

In 2008 Telstra's competitors urged the government to structure any new fibre based network as a structurally separated wholesale only network. The government backed by the ACCC has accepted this ill-considered concept. The government has also responded to calls for the immediate structural reform of Telstra. Whilst it is argued that structural separation of the incumbent will facilitate the transition to the NBN the immediate goal of separation is to make Telstra a more amenable and lower cost wholesaler primarily of the network facilities needed for the delivery of xDSL based broadband. There is an obvious conflict between a policy designed to reinforce Telstra's role as a wholesale access provider and the government's longer-term objective which is to build a business case for the FTTH network as the wholesaler of choice for ISP's, including Telstra if it is to have any chance of commercial success.

Given the low access prices currently enjoyed by competitors in metropolitan areas, which offer an immediate \$15 margin on xDSL services, migrating these ISPs to the new network would be difficult unless the access price was comparable. If the NBN were to charge \$15 per month for access, these revenues would scarcely cover 30% of the interest bill and operational costs of the new network even with Telstra's migration to the NBN. Access fees of \$60 per month, which reflect wholesale prices foreshadowed by Dutch incumbent KPN for its FTTH rollout would be needed.

The question is how can the government encourage migration to the new network if it entailed a fourfold increase in the price paid by access seekers? Leading ISP's have already called for the copper network to be kept operational after the FTTH is rolled out to maintain competitive discipline and prevent the NBN from engaging in monopoly behaviour.

The challenge of encouraging migration to the new network also begs the fundamental question that the government has failed to address, that of the

relationship of the new network to the national network owned by Telstra. Clearly if access seekers are to be encouraged to migrate to the fibre based National Broadband Network then any alternative option such as continued access to the Telstra network would have to be foreclosed. This would lead the government into the same questions of compensation that sank the earlier \$4.7 billion tender.

The dangers and costs in basing policy solely on the complaints of Telstra's competitors are already becoming evident. Whilst complaints about the high prices charged by Telstra for regional backhaul may have legitimacy the remedy offered by the government under its \$250 million regional 'blackspots' programme is extraordinary and underlines the fact that policy is dictated by the pursuit of competition at all costs rather than the use of more rational remedies such as targeted regulation or appropriate subsidy.

The government believes that by duplicating regional fibre routes, backhaul costs can be lowered making it attractive for Telstra competitors to enter regional markets with xDSL broadband. But the proposal is uneconomic and will demand continued subsidy as there is little chance traffic from Telstra's competitors could generate the \$35 - \$40 million p.a. that would be needed to generate a commercial return on the investment. With the exception of Darwin the areas to be served are all regional markets that have typically demanded high levels of subsidy even for standard telephony. They lie mostly in the higher cost Band 3 of the deaveraged local loop unbundling regime and are not attractive to competitors even with subsidized backhaul. Not surprisingly, despite the government's largesse, Telstra's competitors have already rehearsed their excuses for not investing in these areas.

The flawed economics and irrational pursuit of competition at all costs which is obvious in the regional backhaul 'blackspots' programme threatens to be repeated on a far larger scale with the FTTH network. By a factor of four the planned network will be the largest government intervention in NGN/broadband investment contemplated anywhere in the world. In contrast the US government has embarked on an A\$10 billion investment primarily in underserved areas. Scaled for the differences in the size of the US market the NBN is 60 times larger than the investment in broadband contemplated by the Obama administration. The UK government has set an even less ambitious target with a plan under "Digital Britain" to fund the delivery 2 Mbits nationally by 2012 funded through a levy on fixed line telecommunications users which will raise \$300 million a year.

By any measure the \$43 billion network would be the 'lumpiest' telecommunications investment ever made and given it is planned to be deployed within eight years the network will be denied the traditional means of funding massive telecommunications investments. In the past national networks have been built incrementally utilizing a mix of debt and internal cash flow which is generated from the customer base. The FTTH will have no customers in its early years unless they are coerced on to the network that will increase costs massively as Telstra is compensated. Faced with a battle to secure customers the network will be overly reliant on debt and will be faced with an escalating interest liability.

Despite the visionary nature of the proposal the commitment to FTTH does not avoid the obvious flaws that made the initial \$4.7 billion tender unworkable. It calls upon the private sector to invest more than it was able or willing to invest in the earlier FTTN proposal and it is contingent on the co-operation of Telstra or the same questions of compensation will emerge that helped end the previous tender. In summary the policy is possibly even more flawed than the policy it has buried.

## The FTTH Decision

**The Role of the Expert Panel** In April the government announced that it was committed to building a \$43 billion FTTH network following advice from its expert panel group that none of the bids for the initial \$4.7 billion tender represented value for money. The Government released three pages of the expert group's 890 page report seizing on the key observations made by the group that:

- *None of the national Proposals was sufficiently well developed to present a value-for-money outcome.*
- *Each proposal contained attractive elements that, taken together, could form the basis from which a desirable outcome might be achieved.*
- *the public submissions received on regulatory issues and the report of the Australian Competition and Consumer Commission (ACCC) have been highly instructive. They provide a good evidence base for the Government as it moves forward.*
- *Proposals have demonstrated that the most appropriate, cost effective and efficient way to provide high-speed broadband services to the most remote 10 per cent of Australian homes and businesses is likely to be a combination of next generation wireless technology (supported by appropriate spectrum) and third generation satellites.*
- *The Proposals have also demonstrated that rolling out a single fibre-to-the-node (FTTN) network is unlikely to provide an efficient upgrade path to fibre-to-the-premises (FTTP),*
- *(FTTN) is likely to require exclusive or near-exclusive access to Telstra's existing copper sub-loop customer access network (CAN)... As well, providing such access to a party other than Telstra runs a risk of liability to pay compensation to Telstra. No proponent could accept the cost risk and continue to have a viable business case.*
- *The Panel's analysis of the Proposals has highlighted the importance of competition and not just technology to drive improvements in services:*
  - *the need to improve competition in backhaul supply, particularly in regional areas;*
  - *the desirability for a wholesale-only provider of any bottleneck infrastructure; and*
  - *the desirability of improved regulation of the telecommunications industry to provide investor certainty and speed of outcomes*

The question is whether these three pages of observations were the basis for the government making its commitment to spend up to \$43 billion of taxpayers money on an FTTH network or were they an ex post rationalization for the decision. In the absence of the full report this will remain unknown.

It would appear though that these observations were 'abstracted' some months after the expert panel lodged its findings with the government on 21 January 2009. The three page document, which was released following the FTTH announcement on 7 April 2009, has the working title of 'Summary observations for Website' and was prepared on 3 April 2009, four days before the FTTH announcement was made. It may be that this document was merely a retyping or a cut and paste of the relevant pages from the original document but even so there is much that is curious about the observations, principally because they go far beyond the terms of reference given to the expert group. Under its terms of reference the panel was asked to:

- *assess the proposals according to the process and evaluation criteria set out in the Request for Proposals;*
- *conduct negotiations with proponents about their proposals consistent with the Request for Proposals; and*
- *provide a report to the Minister for Broadband, Communications and the Digital Economy ('the Minister') with recommendations on preferred proponent(s).*

Given these limited terms of reference it must be asked why the expert group were so forthcoming in offering advice that had little to do with the task that they were asked to undertake. This is especially when the observations are in almost total 'agreement' with the policy underpinnings of the announcement made on 7 April 2009 and when many of the observations scarcely reflect the expert standing of the members of the panel.

The expert panel was asked to evaluate the earlier bids under strict tender guidelines. The tender itself did not ask proponents to offer advice "on a way forward" should their bid or indeed any of the bids fail to meet the government's expectations. And the tender documents restated the limited role of the panel which was to evaluate and report on the proponents bids after taking into account both the advice from the ACCC on competition and pricing matters and the earlier regulatory submissions. The tender noted:

*"The Panel will be able to consider (regulatory) submissions (whether published or not) in making its recommendation to the Government on the NBN. The submissions will also provide a general resource for the Government in relation to the development of future communications policy and regulation."*

Nowhere did the terms of reference for the panel or the tender documents suggest the expert panel should use those submissions to make general observations about regulation and market structures in Australia. The panel must have been aware that in making such observations there was a danger the government might seize upon them as recommendations. Yet despite not being asked to make such general observations and despite the danger that any observations might be distorted the expert panel volunteered that there was:

*"a need improve competition in backhaul supply, particularly in regional areas;  
- the desirability for a wholesale-only provider of any bottleneck infrastructure; and  
- the desirability of improved regulation of the telecommunications industry to provide investor certainty and speed of outcomes"*

These observations are all the more remarkable in that they are in large part counter to, if not directly prejudicial to the interests of Telstra, a party that the expert group excluded from the tender.

What is also bizarre is that in making these observations on the need for regulatory reform the expert panel did not consult more widely, possibly by seeking extended terms of reference from the minister once they understood none of the bids would 'represent value for money'. Whilst the panel would have drawn upon their own expertise in making these observations the evidence base they acknowledge they drew upon was the earlier regulatory submissions and elements of the bidders proposals.

The regulatory submissions were dominated by allegations about Telstra's anti competitive behaviour and there was an almost complete lack of analysis or reference to international regulatory trends or experience in the submissions. Four of the bids considered by the panel were from groups which were seeking to directly compete with Telstra and in large part their proposals were dependent upon the cooption of large parts of Telstra's infrastructure. Consequently they could scarcely represent a balanced or impartial evidence base on which to make such far-reaching observations about the need for regulatory and market reform

The reality is the observations made by the expert panel did not merely go beyond their remit but they were untested and founded solely on the largely self-serving arguments and proposals put by Telstra's competitors. In a public inquiry the so-called evidence base, which the expert panel relied upon, could have been tested and the panel's conclusions would have been open to examination and further comment. The panel would also have been obliged to make public their full report and consequently the context within which these 'observations' were made would have been obvious.

In the absence of the full report one can only speculate why an expert group would offer observations which conflict with international expert opinion. For example whilst the expert panel found that FTTN did not provide an upgrade path to FTTH because much of the FTTN investment would have been made redundant, the Broadband Stakeholders Group in the United Kingdom found that 50% of the 'capital' deployed in FTTN could be used in an FTTH rollout. The Broadband Stakeholders Group found that deploying FTTN did not present a barrier to any subsequent upgrade unless their had been high levels of sub loop unbundling i.e. unbundling at the nodes. Despite that earlier opinion from the UK body the expert panel asserted:

*"The Proposals have also demonstrated that rolling out a single fibre-to-the-node (FTTN) network is unlikely to provide an efficient upgrade path to fibre-to-the-premises (FTTP), because of the high costs of equipment associated with rolling out a FTTN network that would not be required for a FTTP network."*

Similarly the observation that it was desirable to have "a wholesale-only provider of any bottleneck infrastructure", implying structural separation, defies international understandings of the costs and inefficiencies that may flow from structural separation. It seems that the expert panel were utterly unaware of the international debate which has discarded separation as a regulatory tool. It also ignores the fact that large-scale rollouts of fibre internationally are being led by vertically integrated incumbents. Given the expertise of the panel and given their brief it does seem somewhat curious that the panel would have asserted 'wholesale only' market structures are appropriate in Australia.

As noted there was real danger in the panel over stepping the mark and offering observations that the government could subsequently interpret as recommendations. That danger is now obvious in the decision to tender for duplicate backhaul in six regions. Again one can only wonder, given the panel's credentials, if they were seriously suggesting the duplication of backhaul rather than a heightening of competition through the better regulation of backhaul services.

**Flaws In The Tender** Whatever the merits of these observations about the purported need for regulatory reform, other observations were in large part self evident and the only extraordinary thing about those observations is that it took considerable deliberation by the panel to come to the conclusion that no bid

represented value for money once Telstra's bid had been excluded. The panel made a number of observations that led to that conclusion, in summary that no bidder had a complete business plan and no bidder had addressed the issue of compensation for the access they were seeking to Telstra's network. Both issues were at the heart of the deeply flawed tender process and both were sufficiently obvious to render the tender meaningless from its inception.

It would have been better had the expert panel pointed out somewhat earlier in their deliberations that any proposal predicated on FTTN, other than Telstra's, would raise questions of compensation to Telstra. It would seem that understandings of these issues were only gleaned after extensive legal advice had been sought. Some \$6 million was paid to Corrs Chambers Westgarth<sup>1</sup> and the bill for the services of the Australian Government solicitor totaled nearly \$3 million.

Obviously it's not known how much of those fees went on advice about the constitutional/compensation issue but whether it was only a fraction of the total legal costs it was unfortunate that the expert panel couldn't alert the government to such an obvious problem before there was recourse to costly legal advice. Although the initial tender had not been proscriptive about the technology choice and had sought proposals that could also be based on FTTH the common understanding, given the government subsidy on offer, was that the tender was for FTTN. That implied an upgrading of the Telstra network rather than the creation of an overlay network and it raised the question of cutting over the copper sub loop at the node.

Bidders had readily acknowledged that sub loop unbundling was not economic and that any proposal for FTTN would have required full sub loop cutover. If the winning bid had been from any group other than Telstra cutting over the sub loop would have stranded Telstra's exchange to pillar copper and meant the sub loop even if still owned by Telstra would have become a defacto part of the winning bidder's network. That could only result in considerable compensation being payable to Telstra a danger that was widely understood before the expert panel began its work:

*"Should taxpayers pay a couple of hundred million dollars in compensation to Telstra's competitors so that the national phone company can build its high-speed broadband fibre network (FTTN) or should taxpayers pay \$20 billion-plus so someone other than Telstra can build the network and maintain the illusion of competition."*

**The Age July 19, 2007**

Also the panel would have been aware that in the absence of regulatory certainty no business plan could be completed and consequently no bidder could have secured finance. Bidders were asked to define the regulatory conditions they were seeking meaning that even at the most practical level of evaluating the tender no meaningful comparisons could have been made between bidders as each bid was in effect a moving target. And whilst the panel pointed to the challenge posed to bidders by deteriorating financial markets the real problem lay in the inability of any bidder to prepare a bankable business plan because of the lack of regulatory certainty. Without labouring the point the tender was unworkable in the absence of regulatory guidance from the government.

**The Origins of The FTTH Recommendation** In summary there is much that is curious about the expert panel's observations. But there is even more that is

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<sup>1</sup> The payment to Corrs was revised to \$3.3 million - a clerical error had apparently been made by DBCDE

curious about the way in which the government has interpreted those observations which we understand were codified in a letter from the expert panel to the minister. The extract from the expert panel that was released states that:

*“The Panel can see a way forward to achieve the outcomes sought by the Government and has provided that advice in confidence to the Government because of the commercial sensitivities arising.”*

One can only wonder what commercial sensitivities could have been contained in a brief letter but clearly none could have had anything to do with the bidders' finances or the difficulties individual bidders faced in raising finance. Nor could the sensitivities extend to details of an FTTH business plan. If the expert panel had given detailed advice on the inability of the bidders to raise finance then the government could not have embarked on a policy which now calls for almost twice the capital commitment from the private sector as the one that they were unable to make in their FTTN bids. Similarly given that the bids were essentially for FTTN it is difficult to understand how 'the way forward' could have contained any specific information about the economics of a bidder's FTTH rollout. Nevertheless we are told that the observations contained in the letter are shrouded in 'Commercial in Confidence' considerations.

That the government could abandon a tender because the private sector was unable to raise finance and then proceed to a policy that demands perhaps double the private sector commitment beggars belief. The expectation that the private sector could find more money for FTTH than it could for FTTN ignores the greater costs and risks associated with FTTH compared to FTTN. As outlined the WIK report prepared on behalf of ECTA found there was no business case for a national FTTH rollout in any major market in Europe.<sup>2</sup>

Despite the fact that FTTN offers a greater chance for commercial viability than FTTH and may create the demand and conditions for a subsequent upgrade to fibre to the home, FTTN has been discarded as an option in Australia. Perhaps in a misreading of the expert panel's observations the government has taken the expert panel's observation that FTTN did not represent a 'path' toward FTTH as a rationale for advocating FTTH. Although the expert panel's observations did not directly recommend FTTH<sup>3</sup> as the 'way forward' on making the announcement about FTTH on 7 April the Prime Minister said:

*“the panel of experts, including the Secretary of the Treasury, and the ACCC have encouraged the Government to invest in optical fibre technology.”*

The government has said that it also had advice from the CSIRO and the DSTO that FTTH was the superior technology choice. Such observations about the relative technological merits/capabilities of the two fibre architectures are scarcely insightful and the government has taken a massive leap from the obvious, that FTTH is a 'superior' technology to FTTN, to the unproven, which is that a national \$43 billion fibre to the home network can be commercially viable.

Curiously in its catalogue of endorsements for its decision the government does not mention ACMA its expert technical regulator, even though evidence given by DBCDE in recent estimates hearings indicates its advice was sought. And the advice from

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<sup>2</sup> The WIK study considered the economics of a rollout by vertically integrated incumbents – the economics of a wholesale only deployment were not examined. .

<sup>3</sup> See page 9 re Senator Conroy's acknowledgement of Professor Rod Tuckers advice on FTTH.



the ACCC must have been qualified as the ACCC's chair Graham Samuel told an estimates hearing that it was not within the Commissions' responsibilities to offer detailed advice on technology choice within any of the industry sectors it regulates.

The advice the government appears to have solicited about the advantages of FTTH over FTTN ignores the comparative economics of the two technologies and their commercial merits and real utility in the Australian market. And the minister has evaded any questions about the economic case for FTTH deployment by quoting general studies about the benefits of high-speed broadband suggesting some confusion in the minister's mind between broadband as a 'service' and the underlying platforms that can deliver it. In this confusion the minister perhaps fails to understand that the benefits of high speed broadband can't be realized unless the network to support them can be built at a cost the community can afford. Obviously if the economics of the underlying platform aren't sustainable or the services delivered are too expensive then the general benefits of high speed broadband cannot be realized.

**Dream Large** Consequently the commitment to FTTH may be no more than an article of faith inspired by the credentials of the expert group. As the Minister Stephen Conroy recently acknowledged at the launch of Melbourne University's new Institute for a Broadband-Enabled Society (IBES) at least one member of the expert panel Professor Rod Tucker, a pre eminent academic in the field of opto- electronics, played a persuasive role in the decision to pursue FTTH. In thanking Prof. Tucker for his work on the expert panel the Minister told the audience that Professor Tucker had come forward with the idea of fibre to the home saying that the secretary of his department had remarked that it was "an audacious proposal minister".

It would seem that Senator Conroy's glowing acknowledgement of Professor Tucker's audacious advice is in conflict with earlier comments by the professor who told the Alcatel-Lucent Sustainable Fibre Nations conference on 18 May that:

*"I just want to make one thing clear: the panel of experts was never asked to and didn't make any judgement call on the issue of investment for a fibre to the home network,"<sup>4</sup>*

Although it may be that Professor Tucker's enthusiasm for FTTH did not extend to giving advice on the investment case for a national FTTH rollout he was not merely eminently qualified to comment on the technological merits of FTTH but also well positioned to provide advice on FTTH costs. The Australian Research Council funded Centre for Ultra-Broadband Information Networks (CUBIN), which he is associated with, has undertaken detailed cost modeling of FTTH networks in Victoria. The centre agrees that these costs could be 'scaled-up' to give an estimate of the national costs of FTTH deployment. Interestingly when CUBIN's estimates are scaled up for national 90% FTTH coverage they suggest costs of close to \$40 billion for the network. Nor are the Professor's insights into the merits possibly just academic, as a company owned two of his former PhD. student's is at the centre of a Tasmanian FTTH trial that appears to have been part of the Tasmanian government proposal that so impressed the expert panel.

Professor Tucker may even have gone further in his advice about FTTH to specify the actual architecture that should be chosen given the confidence he exhibited in commenting on the work that his new centre IBES would undertake. Professor

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<sup>4</sup> Reported in TechWorld 19 May 2009

Tucker told IT News on 21 July 2009 that:

*"We have a pretty good estimate of what the technologies behind the NBN will be. I think it's a fairly secure bet that it will look something like a PON [passive optical networking] network so the testbed will initially use that technology."*

The Centre for Ultra-Broadband Information Networks at Melbourne University has done extensive work on passive optical networking and has made breakthroughs in the cost of deploying the technology in rural areas.

But whatever insights and understandings Professor Tucker may hold or indeed whatever understandings other members of the expert panel may have, many of the key observations made by the expert group, other than those on the technological 'superiority' of FTTH are not supported by international experience. Nevertheless the government appears to have found comfort in those observations as it sought to bury the failed tender and there is great symmetry between the panel's observations and the government's policy on FTTH.

That much is obvious. What is not obvious and in the absence of the panel's report will remain unknown is how they could have framed those observations. It is perhaps incumbent on the members of the panel to explain the grounds for their observations and clarify the relationship between those observations and the current policy. It is also incumbent on the panel to explain how and why they chose to abandon their brief, which was the evaluation of bids to venture into making wide-ranging observations about policy.

## **The FTTH Policy**

The merits of the observations made by the expert panel and how those observations might have made their way into policy may remain unknown but what is quite obvious is the immediate success of the policy that the observations were fed into.

The policy announcement by the Prime Minister on 7 April was met with largely uncritical acclaim and it served its first and most important purpose which was to bury the deeply flawed \$4.7 billion tender. No embarrassing questions were asked about the aborted tender given that the government had told the media the expert panel had salvaged much from the exercise by outlining "a way forward". Such was the momentum created by the announcement that no-one stopped to ask how the Department of Broadband which had squandered \$21 million on that fatally flawed exercise could now manage a \$43 billion project.

Following the announcement by the Prime Minister, the Minister Stephen Conroy sought to up the tempo by announcing that the Tasmanian government had;

*"Put a proposal into the expert panel and we believe it's a very exciting proposal. We'll be negotiating with Tasmania in the next 24 hours to be able to start rolling out. We understand that they've been ready to go for a considerable period of time, so we believe that the Tasmanian roll out of the National Broadband Network can actually be commenced by the middle of the year, June-July."*

The Minister and Prime Minister were in Tasmania the next day stating that Tasmania deserved an early start on the NBN given the low levels of penetration in

the state and the lack of competition. An uncritical media accepted the extraordinary promises that were being made with Sydney Morning Herald journalist Elizabeth Knight calling the announcement a killer blow for Telstra. And therein lies the second strength of the policy. It unleashed a new round of anger and resentment toward Telstra not merely as the supposed cause of the initial tender's failure but as a potential stumbling block to the government's grand vision.

That anger and resentment against the national telecommunications company whose vertically integrated structure and conduct over the last decade have been blamed for all the sector's ills now forms the cornerstone of government policy. As noted in the mid 2008 consultation on the regulatory settings for the initial NBN Telstra's competitors complained as one that competition hadn't worked and that Telstra's vertical integration was the core problem.

**The Two Legs of Policy - Separation** Those complaints have provided the rationale for the government's wholesale only network, which the Prime Minister claims will correct, the former government's mistake of failing to structurally separate Telstra into wholesale network and retail companies when it was privatized. They also form the basis for the other leg of policy, the immediate reform of Telstra. It is argued that structural separation will deliver immediate competitive gains, align current market structures with those proposed for the NBN and implicitly set the conditions for the commercial success of the \$43 billion network. Under the threat of separation Telstra would be either forced on board or realize it was to its benefit to 'vend in' its network assets into the new government company in return for equity.

Both legs of the policy have a flavour that is as uniquely Australian as the 'Hills hoist'. No regulator or government in any other major market is considering rolling out a wholesale only national fibre network and no government has structurally separated its incumbent operator either prior to or after privatization a fact of which the Prime Ministers seemed quite unaware<sup>5</sup>. Given that every market that is outperforming Australia in terms of broadband speed price and availability has maintained a vertically integrated incumbent it is clear that Telstra's structure cannot be the problem the Prime Minister deems it to be. Quite simply there was no obvious failure by the previous government in not splitting Telstra before it was sold. If so it was a failure made by every government that privatized its state owned telecommunications company. And even the government's preferred option of functional separation Telstra is finding little favour internationally.

The failure of the policy to take any account any of these realities suggests it is either totally uninformed or has a quite unique vision. At the core of this unique vision is the obsession with structural separation, which may lead to Telstra being split, and which is the basis for a wholesale only NBN. Whilst there are small scale wholesale municipal networks in Europe and the USA their financial performance hardly provides a convincing case for the massive intervention the government is planning. A number of municipal wholesale only networks in the US have been sold to vertically integrated operators and the largest, Utopia serving 60000 homes in Utah has left municipal ratepayers with a US\$400 million liability which is being met by an increase in municipal taxes. Even commercial wholesale networks have had difficulty in raising finance with the ambitious Reggefiber network in the Netherlands being effectively bailed out by the vertically integrated operator KPN.

Separation is not deemed to be an appropriate regulatory tool even in markets where

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<sup>5</sup> See annexure for consideration of deficiencies in the government's understandings of the policy developments/debate internationally

there has been proven anti competitive behaviour by the incumbent. In Italy the regulator has agreed to the operational separation of Telecom Italia (the current model that applies to Telstra) despite the company being fined for denying network access to its competitors in 2002. More tellingly the European Union's Neelie Kroes, arguably the world's most powerful competition commissioner remains opposed to structural separation and is skeptical about the benefits of functional separation despite hitting Spain's Telefonica with a \$300 million fine in 2007 after competitors were denied access to the company's network. Ms Kroes maintains that structural separation would be an inordinate response and that functional separation in the telecommunications industry may deliver limited benefits at high cost despite advocating separation in the utility industries.

**Separation – A Threadbare Policy** Despite the fact that no market is pursuing structural separation recent submissions by Optus and the Competitive Carriers Coalition, which have found obvious favour in Canberra continue to argue structural separation is both rational and necessary. But the submissions also show how threadbare arguments for any form of separation have become. Both Optus and the CCC have sought advice from international experts to bolster their case for separation. Yet neither consultant, Dr. Chris Doyle acting for Optus or the WIK institute on behalf of the CCC, could find any example of separation to consider in depth other than the UK model of functional separation, which was applied to British Telecom.

Dr. Chris Doyle who had provided advice to Babcock Capital Management on the failed attempt to split *eircom* repeated his earlier argument that problems induced by separation such as investment coordination, could be overcome by contracts between the separated companies. He also he restated his confidence in the observations of US economists Prof Gomez-Ibanez that the net benefits of separation in telecoms are positive.

Unfortunately the examples for so called contracting that Dr Doyle cites, notably the airline industry and computer manufacturing are scarcely analogous to a network industry such as telecommunications and the dependence on the rather unconvincing assertions of Gomez Ibanez<sup>6</sup> underlines how little evidence there is to support any form of separation. Nevertheless Dr. Doyle believes that structural separation is essential in Australia to address Telstra's dominance and he has argued:

*"I propose that the Department therefore apply structural separation to Telstra and that this is done as quickly as possible to maximize welfare.*

In making this recommendation for immediate structural separation Dr Doyle expressed his belief that UK style functional separation was not appropriate in Australia because of Telstra's conduct, noting that:

*"Telstra's resistance to additional regulation unfortunately undermines the prospects for functional separation to work effectively."*

Whilst Dr. Doyle believes functional separation could not work in Australia because of Telstra's culture there are profound shortcomings in functional separation, which

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<sup>6</sup> Gomez Ibanez findings on the net benefits of separation in the telecommunications industry are contained in a single table as part of 238 page book on the utility industries which devotes only one brief chapter to telecommunications and his analysis is based on the economics of analogue copper networks not NGN networks.

mean that it cannot be an enduring remedy in any market if the network is to be upgraded. Functional separation is designed for the age of copper access not for the age of NGN fibre based access and its only long term impact is that it presents a massive obstacle to the incumbent investing in the access network. That may well be the intent in Australia.

In other markets such as the UK functional separation has been wound back or has been crafted to encourage a transition to NGN/fibre access by the incumbent. In New Zealand the functional separation of Telecom Corporation New Zealand has as its end game the deployment of fibre to the cabinet (FTTC)<sup>7</sup>, which would create a Next Generation Access network where functional separation becomes effectively irrelevant. Dr Doyle outlined the development and application of functional separation the UK but he neglected to mention that it is now being unwound to permit the rollout of fibre by BT.

The WIK institute also had some difficulty in finding evidence to support its assertion that separation was an appropriate remedy for Australia and they too drew upon the UK experience. The WIK paper argued that the government should:

*“mandate a relatively stringent functional separation of Telstra’s fixed telecommunications services, producing a wholesale-only access services entity with its own board and accounts.”*

What is truly extraordinary about this recommendation is that WIK are effectively arguing that functional separation should be put in place by structurally separating Telstra i.e. as their paper argues by adopting the top level of separation identified by Professor Martin Cave in an influential journal article “Six Degrees of Separation”!

As I have stressed such confused arguments for separation completely ignore the facts. The UK is unwinding functional separation and other leading European markets such as Spain Germany, Italy and France have no intention of following the EU lead and applying functional separation. In the USA separation has not been a live issue since the costly break up of AT&T in the mid 1980’s and Canada has never contemplated separation of any form. None of these realities seem to have fed into the closed policy loop in Canberra and in the absence of any grounding for the policy the debate about the NBN has taken on a bizarre quality.

**The View From Canberra** It would seem that the orthodoxy in Canberra is that an FTTH network based on an unproven business model, which has not been costed and which has few proven commercial applications can succeed. Despite the scant chance that the NBN can succeed commercially it is argued that the NBN will be the basis for a highly competitive telecommunications industry and that its success can be secured rapidly with the ‘co-operation’ of Telstra.

The argument that seems to be emerging from Canberra is that the compelling logic of the NBN and the regulatory pressure being placed on Telstra will encourage it to ‘vend in’ its assets to secure equity in the NBN company. This proposition appears to have its origins in a Nigerian email scam rather than a sound business proposition. At the simplest level under this plan Telstra would vend in its copper access network, a \$20 billion plus asset, to secure perhaps \$4 billion in equity (20%) in NBNco. The problem is this would not only massively undervalue Telstra’s asset but it would

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<sup>7</sup> The equivalent of FTTN in Australia

expose Telstra to the debt held by NBNco which could mean that in winning \$4 billion in equity Telstra would also be exposing itself to \$4 billion in debt. In effect Telstra would be giving its network away and exchanging ownership of an asset that is generating cash to secure a minority stake in an utterly unproven business.

The belief in Canberra is though that the vending in of assets such as ducts etc. by Telstra would substantially lower the construction costs of the network and give NBNco access to cash flow. This implies that the network will be largely underground in urban areas even though preliminary cost estimates and comments by the minister suggest a largely aerial deployment. But even access to ducts etc will not necessarily bring a substantial reduction in costs. The WIK instituted estimated that access to existing ducts etc would give an incumbent a 15% cost advantage over an entrant. In effect if the deployment is largely aerial then the acquisition of Telstra's ducts etc would be of little value and if the network is to largely underground in urban areas then the increase in costs would outweigh any short term gain from the cash flow secured from the copper access network that Telstra vends in.

Whilst securing immediate access to cash flow from the existing copper may seem attractive, the 'acquisition' of cash flow from the access fees paid by users of the copper is not without problems. First a tariff would have to be agreed for NBNco's copper access and those access charges would not be sufficient to offer any meaningful financial support to the NBN. Currently access charges are determined by the ACCC through regulated unbundled rates and in urban areas Telstra's competitor's now pay approximately \$15 a month for access. This is in effect the defacto wholesale access rate.

The question is once Telstra vended in its assets would it too qualify for the \$15 per month rate that now applies to band 2 of the unbundled lines regime? If so NBNco would have access revenues of some \$1.5 billion a year scarcely 30% of its costs of capital and it would be burdened with operating and maintaining the copper network. In effect the copper network might be more of liability than asset to NBN.

Such arguments about the attractiveness of vending in assets beg the question of whether Telstra would be happy to pay NBNco for access to a network it once owned. Perhaps Telstra would if the common access fee was \$15 per month and the company was free of the costs of maintaining the copper network. But it seems somewhat remote that Telstra would find any proposal to vend in its assets attractive unless the value conferred in the NBN equated to \$20 billion plus which would mean Telstra would have to be the effective owner of the NBN .

Granting Telstra ownership or even a majority stake in the NBN is though utterly unacceptable to the proponents of structural separation who are now suggesting even structural separation of the NBN may not be sufficient to prevent a large telco that part owns the NBN from giving preference to itself. A further argument has emerged from Canberra is that the stake held by retail telecommunication companies in NBNco should be capped and that they should not have board representation. This suggests a somewhat strange model for the development of telecommunications networks where telecommunication companies aren't allowed to directly shape the form network investment will take.

The argument for excluding Telco's from investing in the NBN is based on a fallacy, that the NBN is simply a utility like a water gas or electricity reticulation system. Babcock Capital Management tested this concept of a wholesale network as a utility in their plans to structurally separate the Irish incumbent *eircom*. That plan was

aborted because financial advisers to the Employee Share Owners Trust (ESOT), Babcock Capital's partner in *eircom* found that the markets would not buy the concept that a 'wholesale only' telecommunications network was a utility. As the financial advisers to the ESOT argued a wholesale network would not enjoy the margins needed to sustain investment and the utility model was inappropriate to the telecommunications sector. ESOT's advisers noted that the telecommunications industry is far more complex and subject to far higher risk than simple single product utilities such as electricity, gas and water and requires the higher margins gathered at the retail level to sustain investment and to generate the returns commensurate with the risks involved in network investment.

**The NBN – Foreclosing Competition** In summary the economic case for a wholesale only 'utility' network is untested. If the NBN is to generate commercial returns then it will be obliged to move up the value chain and be far more than a supplier of raw capacity such as dark fibre. But the paradox is that the higher it moves up the value chain so the less discretion it will leave to service providers to differentiate their products. In effect if the NBN is to be commercially successful it may foreclose any form of real competition at the retail level.

The very concept of a club owned network that draws together the major telecommunication companies and Internet service providers has anti competitive implications whatever cap is put on individual shareholding. With 'club' ownership the NBN may become little more than a cartel fixing the quality and price of service offerings and the goal of the NBN, which is to promote competition, will not be realized. As Adam Smith commented:

*“People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices. It is impossible indeed to prevent such meetings, by any law which either could be executed, or would be consistent with liberty and justice. But though the law cannot hinder people of the same trade from sometimes assembling together, it ought to do nothing to facilitate such assemblies; much less to render them necessary.”*

**The Wealth of Nations, Book I, Chapter X**

The much-vaunted goal of securing a truly competitive telecommunications industry in Australia is clearly at risk if the government pursues the NBN and it must be asked what can be achieved by the NBN in creating a competitive wholesale market that could not be achieved by the proper regulation of Telstra?

The central question is what form of access can be delivered through a structurally separated NBN that could not be offered as a suite of wholesale products by a vertically integrated carrier? An integrated carrier could be obliged to offer regulated passive access services such as duct access and dark fibre and it is difficult to understand what differences there would be in regulating the provision of active access products such as bitstream on an integrated carriers network compared to the regulation of such services on the wholesale only NBN.

In the age of NGN the scope for sabotage such as delays in allowing access to exchanges, undertaking MDF re-jumpering and transferring copper loops to competitors disappears and the question of regulation becomes one of price. In this context the duplication of national network infrastructure including the costly last mile appears to be an unnecessary exercise when wholesale access could be readily managed under regulation.

**An Answer to Telstra's Monopoly?** Clearly the intent in the NBN is not to optimize the use of existing infrastructure so that high speed broadband is delivered at least cost. It is an exercise in bypassing Telstra because of allegations that the incumbent is anti competitive and has vertical and horizontal market dominance unequalled by any other incumbent. But before the government uses \$43 billion to bypass Telstra it would do well to reflect on how this supposed dominance was created and it was not through any failure to structurally separate Telstra on privatization. Given that Telstra holds similar market share to many other incumbents in fixed, mobile and Internet service the only unique feature it has (other than Telenor in Norway) is ownership of a cable TV network and a 50% share in a pay TV company.

Ownership of the HFC network is not though as Telstra's critics would suggest a monopoly because the Optus Hybrid Fibre Coaxial network has an almost identical footprint to that of Telstra's HFC network. Nor was the present position of the Telstra HFC network and its content 'dominance' the result of some anti competitive scheme by Telstra to foreclose competition from a rival fixed network. The dominance resulted from direct political interference when the former labor government ensured that News Ltd had access not just to a cable TV network but also to programming. Mr. John Menadue a Telstra board member in the mid 1990's has been highly critical of the deal between Telstra and News Ltd and told ABC's radio PM in October 1999 that:

*"I was approached in Canberra about joining the Telstra Board and I was asked what my relations with Murdoch were. I thought, naively, that they were inquiring whether they had a conflict of interest. I said I didn't have a conflict of interest but it became very clear to me that what I was really being asked was would I be a supporter of Murdoch with the Foxtel deal, which was then being considered by Telstra and as it so happened, by the government.*

*Anyhow, I was appointed to the Board of Telstra. It became clear to me, however, on the Board of Telstra - and I mention this because I think these things should be more transparent than they are - it was clear to me that there were two problems.*

*The first is that the business deal for a joint venture between Telstra and News had been expected to provide film content for the new joint venture, but in fact film content had been tied up by Australis and by Optus and as a result, News Limited negotiated business arrangements with Australis to supply film content at a very exorbitant and punitive price which gravely weakened the business case for the joint venture. That was one objection that I had.*

*The second objection was that we were told that the government wants us to do the deal with Rupert. I didn't believe that was appropriate for a government to be seen or in fact to be favouring a business deal with a particular business tycoon. So, I opposed the deal. I was the only one on the Board that opposed the Foxtel deal for those two reasons: a bad business case and undue political influence."*

Mr. Menadue's concerns were well founded as the deal left Telstra with an exposure in excess of \$2 billion when it 'agreed' to underwrite programming costs. The 1995 Telstra Annual Report noted:

*"The Economic Entity (Telstra), its partner The News Corporation Limited (News) and the FOXTEL Television partnership have entered into an*



*agreement with Australis Media Holdings Pty Limited and Galaxy Network International Pty Limited under which certain commitments for minimum subscriber payments over the 25 year term of the agreement arise. Due to the joint and several liability under the agreement, in the event that News fails to meet any of its obligations in relation to the minimum subscriber payments, the Economic Entity would be contingently liable to the extent of that failure.”*

That exercise in intervening in the telecommunications industry has had considerable consequences for the form of competition that has emerged in Australia. A competing fixed line platform was damaged not by Telstra's anti competitive conduct but by a politically driven deal.

Other interventions by the previous Labor Government were also costly and damaging, most notably Aussat the national satellite company. There is much that is similar between the rhetoric of the NBN and the rhetoric that surrounded Aussat in the mid 1980's. Aussat was sold as a technological breakthrough that would end the tyranny of distance by bringing the benefits of communications to rural and remote Australia. Like The NBN it was sold on its technological promise rather than proven need and it too was a lumpy investment which failed because it did not generate the expected levels of use and consequently rapidly sank into debt.

Aussat led to significant changes in media ownership and lessened diversity with the Australian media. Now a similarly ill thought out project, founded on the same 'build it and they will come' mentality threatens to do massive damage to the Australian telecommunications industry by squandering billions of dollars on duplicate infrastructure whilst doing nothing to broaden the market. In summary the NBN has put technology before need or sound economics and its only immediate impact will be to further delay the upgrade of the national network that Telstra first outlined in August 2005.

## **Conclusion**

The government has now started on the NBN rollout with two projects. The rural backbone (sic) blackspots project and the rollout of FTTH to 5000 homes in Tasmania, which would appear to be a further trial building on an earlier trial. Neither of these projects has met with the same level of enthusiasm as the initial announcement in April. While both projects are intended to bring competitive broadband to areas where there is a lack of competition Telstra's competitors have not given either project a vote of confidence.

As outlined the rural blackspots programme offers large subsidies to duplicate Telstra's backhaul into six regions in the belief that this will bring down costs for other ISP's. But the problem is no consumer will enjoy those subsidies unless competitors enter these markets. The hoped for benefit will only come when Optus, Primus, AAPT etc. move into these markets and undercut BigPond's prices. The question is will competitors move into these markets and given comments to date the chances they will enter these markets are as remote as many of the target towns.

Most subscribers in the target areas lie in Band 3 ULL and as David Forman of the Competitive Carriers Coalition recently pointed out there's no business case for putting DSLAM's in such areas. Under Band 3 ULL pricing competitors would have to pay Telstra \$34 for access whilst only being able to charge users the average retail line rental of around \$30. This compares with the situation in Band 2 where competitors immediately pocket a windfall \$15 margin because of the difference between Band 2 ULL prices and the retail line rental.

Mr. Forman told the regional ATUG conference in May it was the entire regulators fault if members of the CCC didn't rush into regional markets. According to Mr. Forman the ACCC's obsession with the ladder of investment and with easing competitors into metropolitan markets through de-averaged ULL prices means rural ULL prices are too high. Essentially Forman complained the ACCC had neglected to create an active access product, which was now needed. Mr. Forman commented:

*“The Government has set aside \$250 million to inject into fixing that problem by building transmission links independent of Telstra – in effect breaking its monopoly. A direct response to an immediate problem, you might think.*

*But the big question now is “after that, what next?”. If we are not careful, the answer might be “not much.....*

*There is a very real risk that the \$250 million set aside for building new regional backhaul could be building white elephants unless the Government also acts to plug the regulatory gap that the ACCC has so far ignored. “*

In essence what Mr. Forman was calling for was a regulated active access product, a bitstream product that ISP's could utilize in markets where ULL prices are not attractive. Mr. Forman complaints were reflected in the comments of Mr. Bhatia of Primus who called more directly for Telstra's ADSL2 to be declared so that ISP's would not have to pay a commercial wholesale price for the service. Under Mr. Bhatia's scheme a declared ADSL2 service would become a de-facto bitstream service offering the ISP a large margin in the delivery of a high-speed service. Such calls reinforce the fact that the access products that ISP's need could be readily provided from Telstra's network and it does not need duplication of the network to give other ISP's the necessary access products in the era of NGN provided there is proper and constructive regulation.

The obvious danger given the NBN is predicated on the basis of “build it and they will come it is that some wholesale customers are already whispering, “build it and we won't come”. Similarly in Tasmania despite the fanfare over the opening of the Basslink cable which again was heralded as breaking Telstra's backhaul monopoly and despite the formation of Tasmanian NBNco, which will embrace Aurora's backbone network, ISP's have signaled that they are content to persist with xDSL deployments utilizing unbundled copper loops. Clearly, despite the promise of the NBN, potential wholesale customers will be more than happy to maintain their margins by utilizing Band 1 and Band 2 unbundled loops and will not transfer readily to the NBN unless the new networks access pricing is competitive.

Consequently the prospects for the NBN in the short to medium term are far from healthy unless the right to use other infrastructure such as the Telstra copper loop is denied. Despite the massive compensation that would need to be paid to Telstra the economics of the NBN demand monopoly because of the very short time frame for its roll out. The NBN has to rapidly secure take up if it is not to suffer the fate of Aussat and slide deep into debt.

But if the Telstra network were to be 'closed' then the government would merely be replacing one allegedly monopolistic network owner with a true monopoly, which ultimately will be privately owned. That would create a far more damaging situation for end users than the one that applies today. Indeed given the secrecy, which surrounds the NBN, the environment within which the network is to be planned and deployed is already far from healthy. No information is available on how the decision was made and no detail is available on the business case for the \$43 billion

investment. Requests for information are met with the response that details of the planned deployment are commercial in confidence even when elements of the deployment, such as the initial rollout in Tasmania involve relationships between a company owned by the Commonwealth and a company owned by the government of Tasmania.

This secrecy stands in sharp contrast to the continued scrutiny and accountability that Telstra or indeed any listed company is subject to. If Telstra had plans to spend vast amounts on an FTTH deployment it would be obliged to make those plans known to the ASX. The government is under no such obligation and has shrouded the NBN in secrecy. This is not the way in which critical infrastructure should be planned and deployed.

## ANNEXURE

### **A Response to: “ National Broadband Network: Regulatory Reform for 21st Century Broadband Discussion Paper”**

**Kevin Morgan - Independent Consultant**

**Introduction** The obvious question that flows from the discussion paper is whether it is ‘fit for purpose’ as the basis for discussion of major reform of the Australian telecommunications industry or to provide guidance on the regulatory settings for a possible \$43 billion investment in a national Fibre to the Home network. The paper is an obvious product of regulatory capture in which those advising the government on policy and to a lesser extent those regulating the industry have been captured by Telstra’s competitors.

In framing the options for reform, and most notably the central issue of structural reform, the paper draws on a body of opinion and on assertions repeated by industry lobby groups within Australia such as the Competitive Carriers and major competitors to Telstra such as Optus. The paper provides no international context or understandings for its options nor does it provide an evidence base that would warrant significant structural reform in Australia other than that filtered by the self interest of the ‘stakeholders’ that were consulted in mid 2008 on regulatory options for NBN mark one.

Indeed such is the extent of the regulatory capture that opinions expressed in 2008 are the only input to the formation of policy. Given this reality the paper fails completely to meet the test set by the Prime Minister in April 2008 when he called for “evidence based’ policy formation. The paper should be withdrawn and redrafted to reflect the broader international debate about regulatory reform and as the Prime Minister has stressed it should draw upon international evidence and precedent and present “facts not fads’.

Until the paper is redrafted and offers more informed understandings based on the international evidence about the real utility of structural reform to fibre investment and enhanced broadband performance the paper can only further distort the debate in Australia and further limit the scope for productive investment which has already been held back by current regulatory settings.

**A Broader Evidence Base** Although the paper canvasses a range of areas that might be the subject of reform its key focus is structural reform, the issue that has dominated the Australian policy debate since Telstra first outlined its plans for fibre to the node in August 2005. Faced with the reality that any large scale rollout of fibre in the incumbent’s access network would strand competitor’s xDSL investments Telstra’s competitors constructed an elaborate fiction, that they too could build a FTTN network. It was a fiction that led the then opposition to believe it could predicate the rollout of a national broadband network through a competitive tender.

The fiction endured throughout the second half of 2008 as bids were submitted and ‘stakeholders offered their opinions on the need for regulatory reform through the NBN process and to the Senate Select Committee which had been formed to consider the NBN. The ‘evidence and opinion was, as the Minister has pointed out, almost unanimous in its criticism of the failed regulatory regime and it was almost unanimous in its calls for structural reform. Twin arguments about the need for structural reform were ‘laboured’ throughout this process. In summary these were

that competition had failed because of Telstra's vertical integration and market conduct and only structural separation of the planned NBN could offer could offer open access and true competition. It was a simplistic argument that has not found favour in any major market where incumbents remain vertically integrated and understandings of open access focus on non discriminatory access to anchor products such as bitstream rather than separation. Nevertheless it was an argument that seduced the expert panel advising the government. It must have also brought comfort to the ACCC whose attitude toward Telstra's has been understandably coloured by the vilification it has suffered in recent years.

The expert panel advised the government, after finding none of the bids represented 'value for money', that:

*" The Panel's analysis of the Proposals has highlighted the importance of competition and not just technology to drive improvements in services; the need to improve competition in backhaul supply, particularly in regional areas; **the desirability for a wholesale-only provider of any bottleneck infrastructure**; and the desirability of improved regulation of the telecommunications industry to provide investor certainty and speed of outcomes."*

On what basis the expert panel formed this opinion, which would seem to be somewhat beyond their remit to evaluate the bids is unclear but at best in the context of the investment needed for access fibre deployment it is an observation which puts the 'competition cart' firmly in front of the 'investment horse'. In suggesting that it was 'desirable' to have a "wholesale' only provider of any bottleneck infrastructure the panels' observations defy the orthodoxy which is informing large scale fibre deployments in peer markets.

It would seem this observation is the basis for the government's policy that the NBN should be wholesale only because there is no evidence or precedent for a large scale, let alone national deployment of a wholesale only FTTH network. Indeed there is no precedent for a large scale wholesale only network irrespective of the technology. The reality, and it is utterly ignored in the discussion paper, is that the world's top FTTH markets Japan and Korea are lead and dominated by vertically integrated incumbents. Similarly large scale fibre deployments in the USA and Europe are being undertaken by vertically integrated carriers for the simple reason that only a vertically integrated carrier can generate the cash flow needed for fibre deployment. In other markets it is well understood that to build the network the network operator must capture sufficient of the value chain to justify the investment – but not in Australia where belief in the wholesale only model stands as an article of faith.

There are of course small scale models for wholesale only fibre deployment, most notably municipal networks in Europe and the USA. Some such as the Utopia network in Utah have failed to reach expected penetration rates and have required further subsidy from city ratepayers. Others have been sold off to vertically integrated operators or are cross subsidized from other utility services. The picture is similar in Europe where municipal networks are either subsidized, or where they have been conceived on a commercial basis such as the ambitious Reggefiber rollout in Holland, they have stalled because of difficulties in raising capital and would appear, in the case of Reggefiber, to have been bailed out by a partnership with the vertically integrated incumbent KPN.

It is of course effectively policy within the EU that government interventions through subsidized fibre investments should be wholesale only to maintain competitive

neutrality, but these interventions are again small scale and as in the case of the Metropolitan Access Networks in Ireland have resulted in underutilized fibre networks in need of continued subsidy.

Given these developments internationally and given that major regulators and policy bodies such as Ofcom and the European Commission have flatly rejected structural separation as an option for reform let alone as the basis for large scale fibre investment it would have been useful if the discussions paper had provided an expert analysis of these international developments. In the absence of any guidance or understanding of international trends what we appear to have in Australia is a circular debate in which 'Key stakeholders' and policy makers live in each others pockets.

Similarly the other leg of the agenda for structural reform outlined in the paper, the functional separation of Telstra exhibits a 'pristine intelligence'. Again there is no international context offered on the debate about the merits of functional separation other than an observation that the UK and New Zealand have implemented it. There is no comment that functional separation is being revisited in the UK because of BT's planned Fibre to the Cabinet (FFTC) rollout or that a FTTC deployment is a key undertaking by TCNZ as part of its separation. Curiously in Australia the renewed interest in structural remedies has been its value in frustrating any access fibre deployment by the incumbent.

Nor is there any acknowledgement that despite the EU's long drawn out move toward mandating functional separation it will only be adopted as a measure of last resort, to be used at the national regulators discretion. Indeed the debate in Europe reveals that markets which are leading Australia in broadband penetration and performance such as Germany and France have absolutely no interest in functional separation. Indeed two thirds of the community (by population) i.e. Germany, France, Spain and Italy will not follow the Commission's lead with Italy choosing to mirror Telstra's operational separation regime for its incumbent. And as noted the changes being considered to BT's separation call into question whether functional separation will endure in that market.

Even a quick survey of international interest in and of the use of various separation remedies would reveal that functional separation may be an illusion that cannot be applied with rigid rules or proscribed by drawing neat demarcation lines through an incumbent's network. That is unless there is an underlying intent to make investment difficult, the so called 'chilling effect' of functional separation so that the incumbent has no incentive to invest.

This may be the intent in Australia that as the government builds a business case for FTTH there should be no enduring threat from an upgraded incumbent's network. If this is not the underlying policy intent then it would have been helpful if the discussion paper could have explained what appears to be a massive tension in policy. Whilst the government is pursuing the rollout of a wholesale fibre network it is also trying to make Telstra a more amenable and accessible wholesaler.

**Conclusion** Unfortunately the discussion paper fails to offer any insight into what is actually happening internationally. Clearly there has been a robust debate in a number of markets about the merits of various structural remedies and the balance of international opinion is that they lack utility because the costs and inefficiencies they would induce would outweigh any benefits. In particular structural separation now stands as a some what tired and discredited policy option yet in Australia it is the cornerstone of a \$43 billion investment. Similarly functional separation is at best an

ill defined concept that cannot be applied through any common set of rules without inducing significant distortions in the market. At worst it was a superb and rather humorous 'braer rabbit' routine by British Telecom as they sought to escape from the threat of structural separation!

It is disappointing that what passes for informed policy debate in Australia is little more than the self interested complaints and views of Telstra's competitors. It is even more disappointing that as the lead adviser to the minister the Department of Broadband Communication and the Digital Economy has not sought to filter or mediate these complaints and has instead recycled them as the basis for policy formulation.

DBCDE must accept responsibility for producing a discussion paper that is incomplete and heavily biased in the options it canvasses. The commercial interests of one group of stakeholders do not necessarily equate with the public interest that one assumes the department is there to protect. The paper demonstrates no understanding of , or worse still, absolutely no interest in what is happening internationally. That neglect threatens to take Australia down a costly and damaging path with the incumbent Telstra not investing and the government squandering money in pursuit of its \$43 billion chimera.