Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010

Brian Dalzell
Economics Section

Kirsty Magarey
Law and Bills Digest Section

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Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010

Date introduced: 18 March 2010
House: House of Representatives
Portfolio: Broadband, Communications and the Digital Economy

Commencement: The formal provisions would commence on the day the Bill receives Royal Assent, while the Schedules are proposed to commence on 1 July 2010. It must be noted that Part 2 of Schedule 1 would not commence at all if relevant provisions of the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010 commence first.

Links: The links to the Bill, its Explanatory Memorandum and second reading speech can be found on the Bills page, which is at http://www.aph.gov.au/bills/. When Bills have been passed they can be found at ComLaw, which is at http://www.comlaw.gov.au/.

Purpose

The Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010 (the Bill) would insert a new Part 20A into the Telecommunications Act 1997 which would prohibit the installation of a (telecommunication) line 1 other than fibre-optic fixed-line infrastructure to the premises (FTTP) 2 or ‘fibre-ready’ fixed-line facilities 3 in greenfield developments 4 nationwide. The Bill provides an array of associated legislative mechanisms to support this primary purpose, in particular relying heavily on legislative instruments.

The legislative regime would apply to those developments where the relevant line installation takes place after 1 July 2010.

1. Line means a wire, cable, optical fibre, tube, conduit, waveguide or other physical medium used, or for use, as a continuous artificial guide for or in connection with carrying communications by means of guided electromagnetic energy.
2. FTTP is fibre-optic fixed-line infrastructure to the premises which includes homes, buildings and workplaces.
3. If a greenfield development is specified in a legislative instrument of the Minister ‘fibre ready’ fixed line facilities can be installed in these developments instead, which provide the infrastructure for the future installation and connection of a fibre line.
4. A greenfield development involves the subdivision of land with a view to the construction of building units or the construction of multiple dwellings on land.

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Background

The Australian Government’s fibre deployment policy for greenfield developments forms part of its overall National Broadband Network (NBN) initiative. A centrepiece of this initiative was the 7 April 2009 establishment of a company (the ‘National Broadband Network Company’ or ‘NBN Co’) to build and operate the new high speed NBN.

The NBN Co was tasked with implementing the Government’s NBN initiative which comprised the following national outcomes:

- connection of 90 per cent of all Australian homes, schools and workplaces with broadband service speeds of up to 100 megabits per second (Mbps);
- connection of all other premises in Australia with next generation wireless and satellite technologies that will deliver broadband speeds of 12Mbps; and
- direct support of up to 25,000 local jobs every year, on average, over the 8 year life of the project.

It is proposed that the new high speed broadband network will be constructed according to the following broad guidelines:

- in towns with a population of around 1,000 or more people - connect homes, schools and workplaces with optical fibre, providing broadband services to Australians in urban and regional towns with speeds of 100Mbps and extending the use of next generation wireless and satellite technologies to deliver broadband connection speeds of at least 12Mbps to people living in more remote parts of rural Australia (and with populations of less than 1000 people);
- provide fibre-optic transmission links connecting cities, major regional centres and rural towns;
- be Australia's first national wholesale-only, open access broadband network;
- be built and operated on a commercial basis by a company established independently of Government and involve private sector investment; and
- be expected to be rolled-out simultaneously in metropolitan, regional, and rural areas.

Funding of the NBN

The Government will make an initial investment of $4.7 billion towards an enhanced NBN via a company (the NBN Co) established to build and operate a new NBN to deliver telephony and high speed broadband to Australian homes, schools and businesses. The preliminary estimate is that the enhanced NBN will cost up to $43 billion. The Government’s investment in the NBN Co will, in part, be funded through the issuance of Aussie Infrastructure Bonds (AIBs). AIBs will provide an opportunity for households and institutions to invest in the NBN.6

Basis of policy commitment

The Government has introduced the Bill with its requirement that greenfield developments must use FTTP technology from 1 July 2010 in order to progress legislative changes that will facilitate the NBN Co’s work and facilitate the rollout of fibre networks.

The Government views FTTP as superior technology to the traditional fixed-line copper network and has indicated that they believe it would be counterproductive during the roll-out of the NBN, to have new homes and other premises in greenfield developments built with a connection to the traditional fixed-line copper network.

The Government argues that the installation of copper-based networks in greenfield estates will lead to higher total costs in the long-run, where these estates would need to be retro-fitted with FTTP connections in future. In addition, the installation of FTTP in greenfield estates will ensure that these estates do not become future broadband blackspots (that is, that they are excluded from the future high speed broadband network through lack of appropriate infrastructure).

The Government policy rationale states that consumers attribute a significant positive value to the availability of FTTP infrastructure in a new estate and are therefore willing to accept the higher capitalisation costs of new properties with FTTP infrastructure.7

Committee consideration

The Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010 has been referred to the Senate Environment, Communications and the Arts Legislation Committee


**Position of significant interest groups**

The following interest group submissions to the Senate Committee in relation to the Bill are summarised below, as collectively they present what we judge to be the main issues relating to the Bill and its implementation.

**Housing Industry Association**

The Housing Industry Association (HIA) does not support the underlying premise of the Bill that seeks to introduce a mandatory requirement for all new developments from 1 July 2010 to fund the cost of installing FTTP, whilst 90 per cent of all existing Australian households are expected to receive this service at no direct cost via the NBN Co’s roll-out of the network.

In other words, it is proposed that the majority of Australian households will receive Commonwealth funded FTTP, whilst new home buyers are asked to pay for this same service via an increased cost of new housing.  

The HIA believes that the Bill will place an additional burden on new home buyers, and in particular first home buyers, placing further negative pressure on housing affordability:

> The costs of utility services to new developments, whilst paid by the project developer during the construction process, are inherently included in the final cost of land and housing development. Therefore, the home buyer pays the costs of these services and they have no choice about the level of service they receive.

The HIA raises additional concerns regarding Telstra’s universal service obligation (USO) which will continue to exist under the changes proposed by the Bill:

> The USO requires Telstra to provide all homes with service through the most appropriate technology at the time. The decision about what method of servicing is used is completely at Telstra’s discretion…The Government needs to urgently clarify how Telstra’s USO will

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8. HIA’s view that the majority of Australian households will receive Commonwealth funded FTTP with no connection charge has not been stated explicitly by the Government. Rather, it is implicit in Government announcements and information relating to funding of the NBN, which has not proposed connection charges for established premises. In addition, as far as the author is aware, established premises connected under the Tasmanian NBN roll-out have not been levied with a network connection charge. Thus it is only purchasers of new houses that would pay a connection charge via the increased cost of housing.

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work in conjunction with the Bill, to avoid undue costs or delay to current and future developments.9

Universal Communications Group

The Universal Communications Group (UCG) sought to highlight two issues from the Bill, specifically:

- the ownership and management of the resulting greenfield fibre deployments; and
- the impact of small sub-divisions and the potential role of local councils to facilitate aggregation as part of local development plans.

In relation to these two issues, the UCG proposed that the subordinate legislation should ensure that:

a) greenfield FTTP networks avoid poor performing network operators that own or inherit network assets by defining acceptable contractual terms between developers and the network owner;

b) inappropriate decisions by developers with respect to network construction and operator selection are not permitted, by defining a panel of approved FTTP network constructors and operators; and

c) the efficient aggregation of development estate broadband networks takes place as part of local council planning.10


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Telstra

While Telstra supports the Government’s vision of fibre in all new developments, they state that:

the Bill in its current form is generating uncertainty for State and Territory Governments, local councils, developers, residents and other end users and for carriers including Telstra.

Installation of fibre networks

Telstra notes that while the Bill proposes to prohibit the installation of non-fibre fixed-lines, it does not actually propose to require the installation of the fibre-optic networks. With respect to whether State and Territory planning laws requiring the installation of fibre-optic networks are necessary in the absence of such requirements, with less than three months to the 1 July 2010 start date, State and Territory Governments are unlikely to have fibre obligations in place in time, if they choose to do so. Without a clear requirement to install fibre infrastructure, developers retain the option to proceed with developments without the installation of any fixed-line infrastructure at all.

Installation of wireless voice telephony

Without a positive requirement on developers to deploy fibre, residents in new developments may end up having to wait until the NBN rolls through their area prior to receiving FTTP. Although Telstra has a USO to supply voice telephony to end users, Telstra states that it must fulfil this obligation using the most cost-effective technology available. Telstra deems fibre generally un-economical without a developer contribution. As copper is prohibited under the proposed legislation, wireless is likely to be the best short-term option in many circumstances.

To alleviate developer concerns regarding potentially excessive contributions, Telstra suggests that the Minister could cap the quantum of contribution that carriers could request from developers and align this with the scope of the non-fibre prohibition.¹¹

Fibre-ready requirements

The Bill proposes that as an alternative to the non-fibre line prohibition, the Minister may instead apply a prohibition on the installation of passive infrastructure, such as ducts, that

¹¹ On page 7 of the Department of Broadband, Communications and the Digital Economy’s Proposed Subordinate Legislation to Give Effect to Fibre in New Developments, Position Paper, 16 April 2010, it states that where the price of provision exceeds $3000 per lot or unit, fibre would be optional and fibre-ready facilities would be the default (see link for the entire paper: http://www.dbcde.gov.au/__data/assets/pdf_file/0005/127517/Proposed_subordinate_legislation_to_give_effect_to_fibre_in_new_developments.pdf).

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are not fibre-ready. In other words, in such circumstances it would be enough to install empty ducts that are capable of accommodating fibre in the future.

Telstra states that it is uneconomic to pull copper through empty fibre-ready ducts as these new copper-lines will be superseded by fibre before the initial capital costs are recovered via end user charges. Thus, developments that the Government designates as being subject to the lesser fibre-ready requirement are likely to have voice and data services supplied via wireless until the arrival of the NBN Co’s rollout of FTTP.

Fibre-first implications

Telstra notes that it is unclear whether the non-fibre prohibition will apply to the first-in network or to all networks subsequently deployed in a development area. For example, a permanent all-fibre requirement could prevent the extension of Telstra’s, Optus’ or TransAct’s hybrid fibre coaxial networks into new developments to deliver pay-TV, subsequent to installation of the fibre-line. The Government’s fibre objectives would appear to be met once a fibre network is installed. Telstra argues that the potential (or otherwise) for subsequent installation of other technologies should be made explicit in the legislation.

In summary, Telstra’s submission presses the urgent need for greater clarity on the Government’s intended application of its policy to provide certainty for residential and commercial developments across Australia.12

Master Builders Australia

Master Builders Australia (MBA) has serious concerns regarding the approach of the Bill at this time. The lack of detail as to the implementation of the Bill and the later legislative instruments is creating major uncertainty within the industry. MBA therefore finds it difficult to support the Bill until the details of implementation are finalised.

The MBA is concerned with the final cost that the developer/builder will face given the new cost for telecommunications within a development and believe that this issue is inadequately covered in the Explanatory Memorandum.

As an example, the backhaul13 of telecommunications from a new development to an appropriate point of interconnection in an existing telecommunications or fibre network is

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13. Backhaul refers to the backbone telecommunications (the main lines connecting nodes) pathways used for transporting traffic from a central site(s) to distribution sites, via local exchanges, to end users, and vice versa.

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an additional cost. Where new backhaul infrastructure is required, the costs can be significant. The MBA is of the view that backhaul for some developments can cost $400,000 - $700,000 or more, depending on the circumstances. This cost would need to be recovered and is likely to have a deleterious impact on home affordability. This is at odds with the Government’s housing affordability objectives.

The cost of FTTP in greenfield developments will come in addition to any other new COAG and Commonwealth Government requirements, such as the new 6-star energy efficiency requirements and the access for the disabled premises standards and will increase the cost of new housing.

Finally, the MBA strongly support the principle of national consistency in regulatory systems and would be concerned if the introduction of the FTTP produced another set of State, Territory and local government variations to greenfield site regulations.\(^\text{14}\)

**Urban Development Institute of Australia**

The Bill does not include or address many of the major issues that the Urban Development Institute of Australia (UDIA) has in relation to the introduction of FTTP infrastructure to greenfield developments since it leaves key details regarding implementation to the subordinate legislation.\(^\text{15}\)

In short, the UDIA believes that the key elements of this legislation are still unknown. This current lack of information regarding the legislation raises concerns in the development industry about a range of issues such as:

- the commercial effects of the proposed legislation upon developers and new homebuyers;
- the impact that the cost of FTTP will have upon housing affordability;
- the potential for NBN funding to support the cost of implementing FTTP;
- the need for equitable treatment of customers in greenfield and brownfield sites (particularly in relation to connection charges);
- the practical details of the NBN rollout related to brownfield and neighbouring greenfield sites; and


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the potential impact of the NBN Co implementation model upon existing FTTP providers who may already be delivering services to developers.

Without this information, the UDIA is not in a position to provide support for the legislation. The UDIA also believes that the legislation should not be debated by the Parliament without particular attention to the subordinate legislation.16

Optus

Optus has argued for the NBN Co to be charged with exclusive responsibility for deploying fibre into greenfield developments. The firm’s general manager for Interconnect & Economic Regulation, Andrew Sheridan, told the members of the Senate Environment, Communications and the Arts Legislation Committee inquiry into the Bill, that to leave greenfields customers with the prospect of non-NBN fibre infrastructure would go against the national network’s overarching objectives and risk throwing off its economic framework:

Our position is that NBN Co be given the responsibility of ensuring the deployment of fibre in all greenfields locations. This will overcome a number of practical issues made in our submissions. As it currently stands, the legislation does not require NBN Co to provide fibre to greenfield locations. Our opinion is driven by the practical consideration of having to interconnect with several providers.17

Whilst being broadly supportive of the intent of the draft legislation, Optus argued that the present Bill appears to conflict with the objective of having a single national broadband network as it implies that customers in new developments may be served by non-NBN Co fibre infrastructure:

In a number of submissions we have said that we think there should be a single network and that is because of the cost of deployment to each individual premise. It does not make economic sense to have two wires to every home.

During this Committee, Sheridan also speculated about the likely timeframe for deployment by NBN Co, saying that:

On the balance of probabilities, it is unlikely they will be ready to begin fibre deployment by [July] 2010. If they are not ready, then the commencement date of the legislation should be moved.

In its submission, Optus suggested several steps that might be taken to ensure the close involvement of NBN Co. These included:

- requiring NBN Co to provide design requirements for all deployment;
- mandating that any new greenfield fibre deployment be deployed by a wholesale only service provider; and
- requiring future acquisition of the fibre deployment by NBN Co with full compensation.\(^{18}\)

**Pros and cons**

**Pros**

In the Explanatory Memorandum to the Bill it is stated that FTTP is widely recognised as the optimal communications technology for the future. This view is based primarily on the relative data capacity of fibre in relation to existing alternative technologies.

Figure 1 below presents the average advertised download speed by broadband internet access technology across OECD countries as at September 2008. In terms of internet capacity, FTTP is preferred because the capacity of fibre is much higher than traditional copper-lines\(^ {19} \) and the capacity of the line is relatively easy and inexpensive to expand once the fibre is in place (adding an additional laser to a line is a relatively simple process).

Implicit in the Government mandated rollout of FTTP in greenfield developments is a view that fibre is the superior technology and will remain so in the long-term, long after the completion of the NBN. Assuming that is the case, then installation of FTTP in greenfields developments during the construction phase would likely be less costly than having to retro-fit post construction.

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\(^{19}\) DSL technology utilises copper-lines for the purpose of internet access. DSL refers to digital subscriber line, a technology that allows high-speed transmission of text, audio and video, usually over standard fixed copper telephone lines.

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Figure 1: OECD average advertised download speeds, kbit/s, by technology, Oct 2009

![Graph showing OECD average advertised download speeds](image)

Source: Organisation for Economic Co-operation and Development (OECD), ‘OECD Broadband Portal’, OECD website, viewed 4 May 2010, [http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html](http://www.oecd.org/document/54/0,3343,en_2649_34225_38690102_1_1_1_1,00.html)

Note: kbit/s refers to kilobits per second, where a kilobit is a 1000 bits. FTTH or fibre to the home is equivalent to FTTP. DSL technology utilises copper-lines for the purpose of internet access. DSL refers to digital subscriber line, a technology that allows high-speed transmission of text, audio, and video, usually over standard fixed copper telephone lines.

Another implicit assumption in the Government’s approach is that it is appropriate for governmental regulation to play a role in directing and supporting a particular form of infrastructure at tactical junctures, particularly where a desired infrastructure might not otherwise be developed, or where that infrastructure does not achieve a desired level of up-take or distribution, through market forces alone.

Comparisons to road infrastructure however are overstretched and an inadequate analogy given the dynamic nature of the telecommunications sector. Nevertheless, arguments for government support of telecommunications infrastructure continue to be made. Ideally, in the absence of any substantiated public good arguments, this type of Government intervention should take place where there are inherent benefits in ensuring widespread or location specific access to infrastructure, and those benefits outweigh the costs, and are substantiated and proven.

Clearly the current Government believes the benefits are there – perhaps most particularly educational benefits and/or the opportunities provided by more immediate access to the global economy accessible through the internet.

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Cons

Government mandating of specific technologies such as FTTP is referred to in economics as ‘picking winners’. There are risks associated with this type of market intervention. In this case, the main risk is that the Government mandated technology will be superseded by a superior technology at some point in the future and the closer to the completion of the NBN that this happens, the higher the costs.

As an example, consider a scenario where a superior broadband access technology is created and is actively utilised in the market place. This would likely result in substitution away from, and a resulting under utilisation of, the initial FTTP technology. This would likely result in a negative impact on the expected return on investment from the NBN infrastructure.

In addition, in the context of this scenario, to the extent that the existing Government mandate for fibre-line connections prevents the up-take of the new technology, the benefits of that superior technology would be forgone to some extent (an inefficient allocation of resources).\(^2\)

To sum, Government mandates for the use of specific technologies are not without risk and imply to some extent that the Government is better placed to allocate resources than the market. The inefficiencies and risks associated with this type of action (particularly in the absence of substantiated public good arguments) are well documented within the field of economics where the price allocation of resources, while not perfect, results in more efficient outcomes than those determined by any central planning authority.\(^2\)

With respect to the Bill, the question as to whether the benefits outweigh the costs and potential risks is particularly relevant. Do the benefits from a mandated fibre deployment in greenfield developments outweigh the risks inherent in the Government picking fibre as the superior broadband access technology into the future? Is there rigorous evidence to support a position?

More broadly, in the context of the rollout of FTTP as part of a publicly funded NBN initiative, do the aggregate benefits outweigh the costs and the risks, and on whom should those costs and risks be imposed?

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21. Economic efficiency refers to an allocation of scarce resources that reflects the effective demand of consumers, such that the well-being of society cannot be improved by some alternative allocation. For an economic system to be efficient, it is necessary that whatever goods and services are produced, they are produced at a minimum cost, are consistent with consumer preferences as reflected by expenditure and are distributed among consumers in accordance with effective demand.


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An example of technological progress in the telecommunications sector

On 21 April 2010, Alcatel-Lucent announced that its research arm, Bell Labs, had successfully demonstrated a technology that boosts the transmission speeds achievable over two DSL (copper) lines.

In this lab test, Bell Labs achieved downstream transmission speeds of 300Mbps over distances up to 400m (or 100Mbps at 1 km). The company believes that the technology promises to enable service providers to maximize the transmission capabilities of existing copper infrastructure for years to come. In addition, an analyst noted that Bell Labs’ test had brought a whole new dimension to the ongoing 100Mbps debate:

The fact that existing copper loops can facilitate 300Mbps at 400 meters reshapes the whole next-generation broadband competitive environment and will open up a wide range of new business opportunities for traditional DSL providers.23

Other commentators have since cautioned against exaggerating these results as potentially affecting the NBN landscape:

This appears to be an exciting development that could inject some extra life into the aging copper network. Of course, fibre is the ultimate future-proof technology that will ultimately be upgradeable to 1 gigabit per second (Gbps) or even 10Gbps to the user. What’s more, fibre works over distances much greater than 1 km and is more energy efficient than DSL .... and given the available copper and the length of the copper in Australia it may have little to no use or in Australia.

The point of including this example here is not the feasibility of the new technology (which looks unlikely to affect the viability of fibre-optics in the short-term and thus the NBN); it is the nature of technological progress in this sector. Specifically, that if a technology that supersedes fibre-optics is eventually developed, its development is likely to be sudden and unforeseen.

In this case, while debate centred on whether substitution to wireless technology would make the roll-out of FTTP feasible, copper-lines (the old technology) were made to produce data transfer speeds that were faster than those expected from the new fibre-line technology of the NBN (100Mbps).24

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Coalition/Greens policy position/commitments

At the time of writing, specific public comment by non-Government parties in relation to the Bill has been scarce. Despite this, some parties have announced aspects of their respective broadband policies, which when analysed, provide a reasonable indication as to their likely position in relation to the Bill.

Coalition

The Coalition’s broadband policy is in direct conflict with the Government’s current NBN initiative and thus has significant implications for the success of this Bill in the short term and the continued existence of the NBN Co in the event of a future coalition election victory.

Recently announced Liberal party policy is to discontinue the $43 billion NBN initiative in its current form:

Mr Abbott announced that if he were elected he would slash public spending by $10 billion, and said one of the first projects he would cut was the $43 billion NBN. 25

The Coalition believes that there are better ways to drive a comprehensive upgrade of Australia’s broadband infrastructure both nationally and in under-served areas. The Coalition intends to implement a different approach (to that of the Government) and says that it will be designed to:

Deliver better, affordable, reliable broadband services where they are needed without a reckless waste of taxpayer’s funds, as well as encouraging the private sector to upgrade broadband infrastructure. 26

To sum, the current position of the coalition makes their support of the Bill unlikely. In addition, a coalition victory at the next election could mean the end of the NBN initiative and the NBN Co in their current form. Were the Bill to be passed, and the NBN Co to be subsequently discontinued, the absence of a guaranteed FTTP rollout could substantially alter the intended effects of the Bill, as a complement to the current NBN initiative.


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Greens

The Greens are broadly supportive of the Government’s NBN initiative but have advocated ongoing Government ownership of the NBN Co (and the NBN) upon completion. In April 2010, Greens Senator Scott Ludlam stated that:

There’s a strong business case for retaining NBN Co in public hands, and certainly not embedding an automatic privatisation trigger somewhere in the legislation.  

Despite broad support for the Government’s broadband initiative, the Greens recently refused to support the Government’s recent Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009 until the NBN implementation study is made publicly available by the Communications Minister. On 27 April 2010, Senator Ludlam stated that:

We don't have any independent indication as to what kind of business it's going to be, what it's going to cost, what wholesale prices will be….We certainly won't be voting on it until we've had a proper look at the economics of the proposal, because it's a huge amount of taxpayers money.

On 6 May 2010, the Communications Minister publicly released the NBN implementation study. This is likely to enhance Greens support for both the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) 2009 Bill and the current Bill.

Any consequences of failure to pass

Failure to pass the Bill will mean that the installation of fixed-line copper networks in greenfield developments is not prohibited. In the context of the ongoing FTTP rollout by the NBN Co, this has potential to increase the total capital costs of housing since any alternative is likely to be more expensive than installation of a single FTTP connection during the construction phase.

In other words, if the Bill is not passed, regardless as to whether:


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• a fixed-line copper network is installed in greenfield developments, or,
• in the absence of any fixed-line network, Telstra chooses to fulfil its USO through the provision of wireless voice telephony;

any retro-fitting of fibre-optics to the premises as part of the NBN Co’s FTTP rollout would likely add to the total capital cost of the new housing, above that of the installation of a single FTTP connection during the construction phase.

Financial implications

The Bill has financial implications for the Government, developers, and telecommunications providers. In relation to the Government, the Bill’s Explanatory Memorandum states that the administration costs of the Department of Broadband Communications and the Digital Economy (DBCDE) will be met from Departmental funding.

Increased costs to greenfield developers and telecommunication providers

Typically the cost of deploying the fixed-line copper network has been borne by the telecommunications provider with little or no cost to the developer. The cost of providing that fixed-line infrastructure was generally recouped by the provider via usage charges to the household user through time.

In March 2010, Telstra announced in relation to the Bill that:

We expect new legislation to commence from 1 July 2010 that mandates the provision of fibre-to-the-premises (FTTP) technology in new housing developments ... As a result, Telstra has changed its policy regarding the installation of telecommunications network infrastructure in greenfields developments ... Where the developer has not made arrangements to have FTTP infrastructure installed, Telstra will no longer deploy copper cable.30

Where the cost of the copper line was previously met by Telstra, the financial implication of the Bill is such that some of this cost will now be met by the developer as indicated by Telstra’s statement:

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The decision was a response to the government's policy that greenfields estates be wired with fibre … The higher cost of fibre means it's not viable for us to provide fibre to the premise without a contribution from developers.  

This is the main financial implication of the Bill and will have the immediate effect of raising the total capital costs of greenfield developments (fibre is more expensive to lay than copper). The issue then is how the cost of the fibre deployment will be split between developers and telecommunications providers. Any increase in cost for developers will result in an increase in the cost of housing as those costs are passed on to the consumer. Similarly increases in costs to the network provider are also passed on to the consumer via increased charges.

NBN Tasmania - indicative costs for fibre deployment?

A recent article stated that concern in relation to the potential cost of the NBN had been growing since Corning Cable Systems was awarded a contract to connect 5000 homes to the NBN in Tasmania at a cost of $38 million or $7600 each. The Tasmanian rollout comprises mainly overhead cabling and it has been estimated that underground cabling could cost four times as much to deploy in some instances.

If the Tasmanian experience is indicative of the cost of FTTP connections in greenfield developments, there are implications for the application of this Bill. Namely, that the connection costs, at amounts substantially higher than $3000 per lot, may mean that use of the fibre-ready provision becomes the norm, rather than installation of optical fibre itself. In the short-term, this may result in a large number of wireless voice connections (provided by Telstra via its USO) and ‘fibre-ready’ infrastructure (as opposed to fixed-line broadband connections through fibre or copper-lines).

Further, where the developer and the telecommunications provider cannot agree on a cost sharing arrangement, which is presumably more likely where the connection costs are significant, the legislation implicitly allows for no action whatsoever. This means that neither a fibre, fibre-ready or copper-line is installed.

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33. As mentioned above, while the Bill proposes to prohibit the installation of non-fibre fixed-lines, it does not actually propose to mandate the installation of the fibre-optic networks. Implicitly then, no line need be installed.
Assuming that the NBN roll-out takes place according to schedule, such developments could be broadband blackspots for up to 8 years, or until such time as the NBN Co rollout facilitates a FTTP connection. In addition, any retro-fitted FTTP connections would have a higher cost to the NBN Co than if a fibre-ready or FTTP connection had been installed in the first instance, where installation costs would have been lower and also shared between the developer/home buyer and the telecommunications provider.

Key issues

While there is broad support for the intent of this legislation, namely, high speed fibre-optic broadband access in new developments and more broadly as part of the NBN initiative, the key issues in relation to this Bill relate to the uncertainty it creates and are as follows.

Equity issues resulting from increased costs of new housing

The distribution of FTTP connection costs may not be equitable with respect to greenfield and brownfield estates. FTTP connection charges are only applicable to new greenfield developments. Purchasers of new housing will pay this cost through higher prices. This is in contrast to existing homes and premises where it is planned that they will have connections to the NBN facilitated as part of the NBN Co’s roll-out of FTTP network infrastructure.

The burden of FTTP installation costs

The Bill creates uncertainty in relation to who will incur the cost of installing fibre or ‘fibre-ready’ infrastructure in greenfield developments and to what extent. It appears likely that the costs will be shared between the developer and the telecommunications provider, with the developer contribution capped at $3000. Any developer costs are likely to be passed on to consumers through the increased cost of housing and this will in turn impact housing affordability.

Potential for broadband blackspots

There are two potential ways in which the Bill allows for potential broadband blackspots:

1) The proposed subordinate legislation to the Bill states that where the cost of FTTP provision to a developer exceeds $3000 per lot or unit, fibre would be optional and fibre-ready facilities would be the default; and

2) The current wording of the Bill implicitly allows for no action to be taken in relation to fixed-line infrastructure, that is, no copper or fibre-line connection and no fibre-ready infrastructure.

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Whether only fibre-ready infrastructure is installed, or no fixed-line infrastructure is laid, a development risks becoming a broadband blackspot until such time as the NBN is complete and/or the NBN Co has facilitated a fibre-line connection to the network.

In such instances, Telstra is likely to satisfy its USO via a wireless voice telephony connection. In addition, any retro-fitting of fibre-optics to the premises as part of the NBN Co’s FTTP rollout would likely be more expensive than initial installation of a single FTTP connection during construction of the development.

Timing of the Bill

In the absence of a legislative requirement to install fibre-optic networks, State and Territory Governments (at the time of writing) have less than 2 months to implement fibre-optic installation and associated obligations for developers, if they choose to do so.

Ownership and operation of the greenfield fibre networks

The Bill does not explicitly mandate the ownership or operation of greenfield development FTTP networks by the NBN Co. This creates uncertainty in relation to who will own and operate the greenfield development fibre networks and any resulting variation in service stemming from multiple providers, technical standards, service quality or pricing.

Fibre-first implications

The current wording of the Bill does not explicitly allow for the connection of alternative technologies such as hybrid fibre coaxial Pay TV networks subsequent to a FTTP connection.

Government mandate of specific technology

A Government mandate for use of a specific technology such as FTTP is referred to in economics as ‘picking winners’. There are risks associated with this type of market intervention, particularly in the absence of any substantiated public good arguments.

In this case, the main risk is that the Government legislated technology will result in inefficient outcomes and/or be superseded by a superior technology at some point in the future and the closer to the completion of the NBN that this happens, the higher the associated costs.

Main provisions

Part 1—General amendments

The main legislative changes proposed by the Bill are contained in item 10 which seeks to insert a new Part to the Telecommunications Act 1997 (the TA), Part 20A—Deployment
of optical fibre etc. Various preliminary matters are dealt with by the Bill, for instance items 1-7 seek to introduce various new definitions into section 7 of the TA (the definitions section), which nearly all depend on meanings subsequently provided for in Part 20A. Thus building lot, building unit, fibre-ready facility, fixed-line facility, project area, real estate development project area, subdivision of an area of land and selling with respect to a building lot or building unit are defined by reference to respective sections of proposed Part 20A, while a self-contained definition is provided in item 3, which, presumably uncontroversially, defines an ‘optical fibre line’ as a line that consists of, or encloses, optical fibre.

Items 8–9A create more complex definitions (which still partially rely on subsequent provisions of proposed Part 20A). Item 8 proposes a new paragraph to be added to subsection 110(2) of the TA, which defines ‘sections of the telecommunications industry’. The new group to be defined as a part of the telecommunications industry are those who install optical fibre lines or facilities for the lines in the project areas for a real estate development project (as defined in proposed Part 20A). Being a part of the telecommunications industry attracts certain rights, privileges and responsibilities, including participation in the establishment of industry codes and standards.

Item 8A proposes that regulation of the design features and performance requirements of optical fibre lines and associated facilities be covered by subsection 113 of the TA, which covers ‘[e]xamples of matters that may be dealt with by industry codes and industry standards’. In proposed paragraphs 113(pa) and (pb) the coverage of the design features and performance requirements for optical fibre lines and associated facilities are to be made subject to industry codes and standards (in so far as these issues fall within the parameters of certain sections of proposed Part 20A, for instance whether they are within the relevant project areas for a real estate development project as set out in that proposed Part). When carriage services are supplied by optical fibre lines then the characteristics of those carriage services, and the performance requirements to be met by them, are incorporated into the matters that may be dealt with by industry codes and industry standards under section 113(3) (proposed paragraphs 113(3)(pc) and (pd)). The inclusion of these carriage service standards is only conditional upon their status as being supplied by optical fibre lines rather than inclusion in the definitions of particular projects, project areas and real estate development projects as defined in proposed Part 20A.

Item 9 has the effect of clarifying that matters dealing with the design features or performance requirements of optical fibre lines and their facilities may be regulated in certain circumstances. The subsection 115(1) of the TA constrains industry codes or standards so that they have no effect:

(a) to the extent (if any) to which compliance with the code or standard is likely to have the effect (whether direct or indirect) of requiring customer equipment, customer cabling, a telecommunications network or a facility:

(i) to have particular design features; or

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(ii) to meet particular performance requirements; or

(b) to the extent (if any) to which it deals with the content of content services.

There follows a series of exceptions to these above general rules which effectively allow the regulation of certain matters by their inclusion in industry codes and standards. These industry codes and standards are subject to regulation by the Australian Communications and Media Authority (ACMA). Item 9 seeks to add another exception by providing that the regulation of optical fibre lines and their facilities are also to be exempted from the rule in subsection 115(1) set out above, which will therefore enable the regulation of these matters through codes and standards.

Section 118 of the TA deals with ACMA’s power to request that a section of the telecommunications industry develop a ‘code’ governing relevant issues. This general power is subject to a list of exceptions which delineate circumstances in which ACMA must not request such a code, including situations where the issues would touch upon privacy concerns, or would inappropriately stipulate particular design features or performance requirements for customer cabling or equipment or telecommunications networks or facility (unless ACMA considers the community benefit of such a code would outweigh the costs of compliance). Item 9A proposes to add another exception to section 118 which would allow code based coverage of requirements for optical fibre lines or facilities to ‘have particular design features; … or to meet particular performance requirements’ when they fall within the parameters of the real estate development projects defined in proposed Part 20A.

Part 20A—Deployment of optical fibre etc

As outlined above, the principle operative part of the Bill is the insertion of a new Part 20A to the TA. The simplified outline to be included in the Bill is a useful tool for understanding the structure of the Bill’s changes. In summary it explains (in proposed section 372A) that, after the Bill’s provisions comes into operation, there is a legislative requirement that only optical fibre line and fibre-ready fixed line facilities can be installed in land being developed according to the Bill’s schema (essentially subdivision of land with a view to development, and construction of multiple building units on land – popularly referred to as greenfield developments). The relevant projects must be covered under relevant legislative instruments, however the Minister can also provide exemptions from these rules in a legislative instrument.

34. There are recurring references to the commencement conditions for the various provisions of the Bill – which will only come into operation after the commencement of the relevant provisions. So, for instance, proposed paragraph 372B(1)(g) provides that it will only apply when ‘the installation occurs after the commencement of this section’. Rather than repeating this requirement it is noted here that the provisions are not designed to operate retrospectively and there is frequent legislative reference made to this condition.

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Division 2—Deployment of optical fibre

Proposed subsection 372B(2) prohibits the installation of any line other than an optical fibre line where a real estate development project is occurring which involves (proposed subsection 372B(1)):

- the subdivision of land into building lots (proposed paragraph (a)),
- the project being covered by a legislative instrument (proposed paragraph (b)), and
- the line is designed to provide a carriage service for the public to end-users for whom buildings have been, will be (or may be) constructed (proposed paragraphs (c), (d) and (f)).

Proposed paragraph 372B(1)(e) actually exempts from regulation the line on the customer side of the boundary of a telecommunications network. The Explanatory Memorandum suggests that this is necessary to ensure that customer cabling is not inappropriately regulated. 35

Proposed subsection 372B(4) allows the Minister to specify, via legislative instrument, conditions in relation to the installation of a line a project area covered by that section. Proposed subsection 372B(5)-(6) would give the Minister the power to exempt conduct, whether conditionally or not, from the scope of subsection 372B(1) and hence the requirement set down by subsection 372B(2). Proposed subsection 372B(7) provides that the Australian Communications and Media Authority (ACMA) may be given functions or powers under the various legislative instruments envisaged by proposed section 372B.

Proposed subsections 372B(8)-(9) provide that contravention of proposed subsection (2) as civil penalty provisions, including aiding, abetting, conspiring, counselling, inducing or procuring the installation of non optical fibre line and/or failing to comply with the relevant legislative instrument, or being a party to such a breach, directly or indirectly. As a consequence, the maximum penalty for each contravention is $250,000 for a company and $50,000 for an individual.

Proposed section 372C contains effectively identical provisions to proposed section 372B, however its scope covers the construction of one or more building units on one or more areas of land, as opposed to 372B which involves subdivision and construction.

Division 3—Installation of fibre-ready facilities

Proposed sections 372CA and 372CB mirror sections 372B and 372C in most respects but have relevant differences because they deal with situations in which fibre-ready

facilities are to be installed, rather than the actual fibre line. The Explanatory Memorandum comments that the intention is that

[the fibre-ready connection requirement may be imposed in real estate development projects where it would not be practicable to immediately impose the fibre connection requirement under proposed Division 2, due, for example, to the immediate cost of installation of fibre or other considerations.]

The approach would

ensure that the fibre-ready fixed-line facilities that are installed in these developments will permit fibre to be installed at a later time in a quick and efficient manner, at low cost and with minimum inconvenience to the community.

The two fibre-ready sections apply to different forms of greenfields – subdivided land and newly constructed buildings – and provide for a comparable legislative instrument regime. The Explanatory Memorandum notes that this regime could allow the Minister to permit the installation of fixed-line facilities other than fibre-ready facilities where

- a particular facility other than a fibre-ready facility is necessary for the provision of particular non-fibre lines and its provision will not impact on the general availability of fibre-ready facilities;
- fibre-ready facilities are also in place (e.g. a dual provisioning approach); or
- the anticipated cost of installing fibre-ready facilities is above an identified threshold.

Proposed subsections 372CA(8) and 372CB(8) also differ in that they establish a regime for ensuring third party access to fixed line facilities. The two proposed sections allow for powers to be conferred on the ACCC with respect to regulating such access. Both of these proposed sections also provide that regulations can give jurisdiction to a court with respect to the regime for third party access to a fixed-line facility (proposed subsections 372CA(9) and 372CB(9)).

All four of the central provisions of Part 20A follow the basic template of establishing the scope of the section – i.e. the form of greenfield development, and then prohibiting the installation of non optical fibre or fibre-ready facilities. The legislative instruments regime is similar in so far as the Minister is given power to specify the scope of coverage or the conditions that such an installation must comply with, but may also exempt, conditionally or not, conduct or coverage issues. All the sections allow for ACMA to be given functions

and powers through legislative instruments, with the two sections covering fibre-ready facilities also providing for additional regulations to ‘establish a regime for third party access to a fixed-line facility...’ which can confer functions and powers on the Australian Competition and Consumer Commission (the ACCC). Finally all four sections create civil penalty provisions for enforcement, with the two fibre-ready facility sections also conferring jurisdictional power through the ACCC to the Federal Court.

Division 4—Miscellaneous

This proposed Division provides the series of definitions referred to at the beginning of the Bill (and in the Main Provisions). Proposed section 372D defines a real estate development project in such a way that it must involve the subdivision of land into lots (a process which is, in turn, clarified in proposed section 372E to include developments where some parts of the land subdivided are not included in the lots created, eg a road). The project must involve either offering the lots for sale (with a view to the presumable construction of building units) and/or the actual construction of building units on the lots which are then to be made available for sale or lease. Further applicable conditions may be specified in a legislative instrument.

Proposed section 372F defines building units, relatively straightforwardly, as an entire building where it is intended for single occupation, or use as a ‘building unit’ and also clarifies rules regarding situations where part or whole of a building is to be held as a unit in a strata title system (or similar), or a separate lease is to be held over part of a building – these defined entities are also to be regarded as building units.

The technical need for the legislative definitions of ‘sale of building lots’ and ‘sale of building units’ (proposed sections 372G and 372H) may undoubtedly become significant, however both would seem to follow a straightforward traditional understanding of a sale—that is, transferring the freehold or leasehold interest in the land or the building unit.

Proposed section 372HA defines a fixed-line facility as a facility (other than a line), which is not on the customer side of the telecommunications network and is used to supply a carriage service to the public. The definition of a fibre-ready facility in proposed section 372HB is left to be determined by legislative instrument.

Finally proposed section 372J defines supply to the public. The definition relies on the TA’s definition of a network unit, defined in Part 2—Network units.39 Thus, if a line is

39. The simplified outline provided in the Act defines a network unit as:

   (a) a single line link connecting distinct places in Australia, where the line link meets certain minimum distance requirements;

   (b) multiple line links connecting distinct places in Australia, where the line links meet certain minimum distance requirements;

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part of a network unit, which in turn is used as a carriage service to the public then the line is taken to supply a carriage service to the public.

In a change subsequent to the proposed insertion of Part 20A to the TA, item 11 seeks to make an addition to section 25 of the Trade Practices Act 1974. Section 25 governs the Australian Competition and Consumer Commission’s (ACCC’s) capacity to delegate its regulatory powers across a range of its roles and responsibilities. As noted above, proposed sections 372CA and 372CB give the ACCC a role in regulating third party access to a network. The proposed change would allow the ACCC to delegate these regulatory powers to an individual member of the Commission.

Part 2—Consequential amendment relating to civil penalty provisions

Proposed part 2 of the Bill would simply revise the existing definition of a civil penalty provision to include those introduced by the Bill. Part 31 of the TA provides for pecuniary penalties for breaches of civil penalty provisions, but also provides that criminal proceedings do not lie against a person only because the person has contravened a civil penalty provision.

Legislative Instruments

It should be noted that the Bill is relatively simple in legislative terms, but would obviously have significant consequences. Part of the reason for the Bill’s simplicity is that many issues are left to be resolved by legislative instrument (instruments which will be subject to Parliamentary scrutiny and disallowance as a matter of course\(^{40}\)). The Department of Broadband Communications and the Digital Economy has issued their Proposed Subordinate Legislation to give Effect to Fibre in New Developments Position Paper,\(^{41}\) however proposed subordinate legislation falls outside of the Digest’s current scope.

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(c) a designated radiocommunications facility;
(d) a facility specified in a Ministerial determination.

40. Explanatory Memorandum, p. 40. Certainly the legislative instruments in the Bill are not exempted from the normal course of review, as is sometimes done.


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Concluding comments

There is broad support for the intent of this legislation, that is, high speed fibre-optic broadband access in new developments. Despite this, the Bill has not been well received by interest groups and stakeholders. This is mainly due to the uncertainty created as a result of the Bill.

The proposed Subordinate Legislation to the Bill aims to address some of this uncertainty. Its release however, has not produced any substantial public support of the Bill, particularly by those interest groups and stakeholders that were critical of the Bill in their submissions to the Inquiry by the Senate Standing Committee on Environment, Communications and the Arts, the Report from which is due on 12 May 2010.
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