



**Telstra Corporation Limited**

**Response to the "Position Paper"  
dated 16 April 2010  
from the Department of Broadband  
Communications and the Digital Economy  
on the proposed subordinate legislation to give  
effect to fibre in new developments**

**28 April 2010**

## Executive Summary

On 16 April 2010, the Department of Broadband, Communications and the Digital Economy released a document entitled "Proposed Subordinate Legislation to give effect to fibre in new developments, Position Paper" ("**the Position Paper**"). The stated purpose of the paper is to provide information and seek views on the proposed subordinate legislation to bring into full operation the requirements for the provision of fibre telecommunications infrastructure in new developments. The heads of power for the proposed subordinate legislation are set out in the Telecommunications Legislation Amendment (Fibre Deployment) Bill ("**the Bill**"), which was introduced into Parliament on 18 March 2010.

Telstra welcomes the provision of more detail on the proposed subordinate legislation as it is a key part of the overall legislative framework contemplated by the Bill. However, the continuing absence of a positive obligation on any party to install fibre and fibre ready facilities, in favour of the current approach of prohibiting non-fibre fixed network infrastructure risks a significant proportion of current and future developments falling outside the fibre policy. This would occur either because the development:

- does not meet the stated size or monetary thresholds and hence will fall within the lesser "fibre-ready" category;
- does meet the stated thresholds but an absence of any mandate to install fibre means the development is able to proceed without fibre infrastructure; or
- is already past the commencement trigger as set out in the Position Paper and also proceeds without fibre infrastructure.

If developments proceed without the developer arranging for fixed line infrastructure to be installed within them, then under Telstra's Universal Service Obligation ("**USO**"), Telstra will eventually (when homes/businesses are built and occupied) need to service residents or businesses with voice telephony services. As Telstra has previously stated, any new copper infrastructure is likely to be stranded before Telstra has recouped its investment and therefore Telstra has stopped provisioning copper in new developments. As a result, residents in new developments may be provisioned with wireless connections pending the NBN rollout. Further, there is no requirement on NBN Co to ensure that these areas are prioritised for fibre rollout.

Another area of concern not addressed in the Position Paper is that the Bill provides the Minister with the power to make regulations for a third party access regime to apply to "fibre-ready" fixed line facilities. Telstra again reiterates the need for clarity on what is proposed and again advocates that non-carriers be subject to the regime contained in Part 5 of Schedule 1 of the Telecommunications Act 1997 ("**the Act**"). Without urgent clarity on this issue and without an obligation on any party to actually install "fibre-ready" fixed line facilities, Telstra is concerned that no such facilities will be provided, leading to substantial cost and refit work for NBN Co and residents at the time when NBN Co's rollout reaches these areas, thereby defeating the policy outcomes intended from the Bill.

The remainder of this submission provides detailed comments on the proposals in the Position Paper. Telstra's most significant concerns with the Position Paper are:

- The Position Paper nominates a number of roles that suggest a regulator or quasi-regulator role for NBN Co at odds with it being a potential competitor to other providers of FTTP in new developments. These include:
  - the proposal for NBN Co to grant exemptions from the requirement to install fibre-ready infrastructure; and

- the ability for a technical specification of NBN Co to bind providers in new developments.
- Further clarity on the operation of the fibre-ready requirements for infill developments is needed in particular in regard to aerial and replacement infrastructure.
- If the size threshold is to remain, we query how any changes to it will be replicated in any complementary State or Territory legislation.
- Some elements of the price threshold need reconsideration such as the inclusion of trenching and internal wiring, while we seek clarification in respect of others such as connection charges and the definition of backhaul.
- Stage 3 from the Table at page 9 of the Position Paper has been selected as the trigger event for the application of the prohibition in the Bill. This will cause a large number of developments to be excluded from the fibre and fibre-ready requirements and as a result significant uncertainty will arise as to by whom and when these developments will be serviced with fixed line telephony and other services. In addition, Telstra is concerned that a definition or formulation for Stage 3 has yet to be developed and seeks further clarity. We recommend a definition for those developments still in Stage 3 by reference to those that have not completed Stage 4.
- The proposed requirements for fibre-ready need to be clarified.
- Telstra raises a number of concerns with the fibre objectives for residential premises. Many of these are objectives which seek to be consistent with the network and operational parameters of the NBN. However, NBN Co have not made these parameters public and it may yet be some time before they are decided or made available for discussion. Even then, what may be appropriate for a Government funded national network may not be appropriate for smaller scale, essentially "in-fill" fibre islands. Each of the parameters would need to be worked through with industry carefully to determine whether they are appropriate. The proposed requirements need careful consideration as unworkable requirements may cause the installation of fibre in new developments to cease altogether.

## Types of developments to be captured

Telstra agrees with the Department's proposals that:

- the geographic footprint of the fibre/fibre ready requirements should be linked to the deployment of one or more other utility services; and
- within this footprint, developments should not be subject to the fibre/fibre-ready requirements if they fall within an area which is excluded from fibre deployment in a plan published by NBN Co.

NBN Co has been tasked by the Government with the deployment of fibre infrastructure nationwide and presumably will do so where it is appropriate having regard to the economic and functionality trade-offs between fibre and the wireless/satellite alternatives. Hence, others should not be required to deploy fibre in areas where NBN Co would not do so itself. While NBN Co's plan may change over time, there should be no retrospective operation of changes to the NBN Co plan for the purpose of the fibre/fibre-ready requirements.

Telstra is concerned by the proposal for NBN Co to grant individual exemptions over and above its plan. It is inappropriate for this role to be delegated to NBN Co - a potential competitor to providers in new developments. The Australian Communications and Media Authority ("**ACMA**") is the industry regulator and should have this role, liaising with NBN Co if necessary as to the interpretation of any plan NBN Co may publish. We also query whether this proposed role for NBN Co is consistent with Australia's obligations under in the WTO Telecommunications Reference Paper and the Telecommunications Chapters in bilateral Free Trade Agreements which relate to regulatory independence. We recommend that the Department obtains considered advice on this issue.

### **Further qualification of the fibre-ready requirement in relation to in-fill developments**

The Position Paper states that "*[i]f fixed line facilities in the street were to be replaced, however, they would need to be replaced with fibre-ready facilities.*" There are a number of considerations in relation to this proposal:

- if NBN Co intends to use aerial cabling in a particular area, then making any underground facilities in that area fibre-ready would be wasteful;
- repair work may require the replacement of a part of a piece of the passive infrastructure, from several metres to longer distances, or may include the replacement of an individual pit. It may not be workable to helpful or have a fibre-ready requirement for small bits and pieces of a broader network. In our view, the replacement requirement in infill areas should only apply where a particular length of infrastructure is being replaced, say 500 metres of conduit and associated infrastructure, and then should apply only to the replaced infrastructure and not to the rest of the local access network in the same area, even if connected to or comprising part of it;
- the application of the fibre-ready requirements to aerial facilities is not clear. For example, would new or replacement poles need to be configured in such a way as to be fibre-ready?

## **Fibre Requirement**

Telstra has consistently advocated for a singular monetary cap as the threshold for the fibre requirement. In our view, the 200 lot size threshold is an artificial constraint on the deployment of fibre. There may well be many smaller developments that could be fibred for less than \$3000 per lot, especially once the policy and the market dynamics are established.

But if the 200 lot threshold is to remain, it should be closely monitored and adjusted downwards as the regulation and the market matures. Any such adjustment would need to ensure:

- the threshold number flowed through automatically to any complementary State or Territory legislation. In this regard, the way the States and Territories implement the legislation will be important. Telstra is concerned that we are yet to see "model" legislation or clauses for the States and Territories and whether they include an effective mechanism to flow through changes at the Federal level. We therefore call on the Department to work with the States and Territories to develop a mechanism that will allow for the flow through of any changes from the Federal legislation to be implemented at the State and Territory level; and
- the telecommunications industry and developers are quickly advised of any changes, to limit any confusion and operational issues.

## **Operation of the price threshold**

Telstra supports the following elements of the price threshold:

- the amount being in the order of \$3,000 subject to the comments below;
- the amount being calculated on the basis not of the cost of the infrastructure but the price paid to the carrier for the deployment of fibre; and
- a single cap which includes all the elements required for an operative service, including backhaul.

However, Telstra does have concerns about the operation of the price threshold as set out below.

- The Position Paper seeks to include "trenches or similar" including from the network to the property boundary and to the premises. The standard practice is for telecommunications providers to use trenches established by developers for other required utilities. In this way, no bespoke trenching is required. The Position Paper does not recognise this practice and Telstra is therefore concerned that a developer may be able to claim that costs in their developments exceed \$3000 per lot by adding in the cost that they would have incurred in any event to provide water, sewerage and electricity to the development. In addition, trenches across an individual lot to the network boundary point have traditionally been at the cost of the end user or property owner. The following statement on page 6 reinforces Telstra's concerns on this issue:

*"If a party acquiring facilities wanted to make an in-kind contribution of resources needed to provide fibre in a new development (e.g. space for a particular facility) but not have it counted to the price threshold, that would be a commercial matter for the party concerned."*

This implies that a developer is able to value any in-kind contribution to the monetary threshold. In respect of access to space, a commercial valuation of land would mean that the \$3000 threshold is likely to be exceeded<sup>1</sup>.

- The Position Paper also seeks to include "basic internal wiring" into the price threshold while the definition of optical fibre line in the Bill ends at the network boundary (i.e. the Optical Network Termination ("ONT")). Internal distribution networks come in a wide variety of configurations, use fixed and wireless technologies and vary enormously in cost. Internal wiring could account for a substantial proportion of the \$3,000 cap and there are likely to be many opinions as to what is "basic" internal wiring. In Telstra's view, internal wiring is a matter for the end user and not the carrier. At a minimum, if the ONT is located internally, then the threshold should only include any optical fibre leading to the ONT (that is on the network side of the network boundary point) but not beyond. If the ONT is to be external, then no internal wiring should be included. For multi-dwelling units ("MDUs") the situations become more complicated. In the copper world the boundary point is often a central frame with private cabling beyond. In Telstra's view, for MDUs this should be the position in the fibre world as well.
- The Position Paper is inconsistent with respect to the inclusion of backhaul within the price threshold. It states that the price of backhaul would relate to the capital or establishment cost of backhaul but then also to "backhaul capacity". Telstra's position has always been that providers of fibre to the premises ("FTTP") in new developments should quote for an end to end service, that is, the cost of backhaul should be taken into account. This would alleviate concerns that developers could be provided with FTTP to the edge of the development – which is then not operable as it does not connect in to any broader telecommunications infrastructure. However, we are unsure why the inclusion of backhaul needs to be formulated as the capital or establishment cost. Backhaul could be leased or shared between parties and hence such costs may not necessarily be incurred other than in the normal course as usage based requirements. We consider that the better formulation is that described for the headend, namely, "*the price would need to reflect the technical specifications set out in the instrument*" and then "*including any relevant backhaul*". As the specifications include any-to-any connectivity and requirements for speed and committed information rates for uploaded and downloaded data, they implicitly require sufficient backhaul.
- The Position Paper notes that broadcast signals do not need to be included in the price threshold, but we query the consistency of this with the technical specifications listed further in the document. See below for details.
- The Position Paper notes that the price threshold should be the total price payable by the parties acquiring the fibre facilities and that this price may be met by a range of parties, such as the property owner paying for elements within the property boundary. This implies that "connection" charges which are usually paid by the property owner need to be included in the threshold. It would be helpful if there was greater clarification as to whether this is the intent and if so, ensure that it is limited to the first connection to the particular lot or unit. The effect of including connection charges would be to reduce the cap for network deployment by between \$300 and \$600 and if it is intended to be included, leads us to query whether the cap should be increased to \$3,500. We note including connection charges within the price threshold would alleviate concerns that some providers may backload what would normally be paid by developers by charging property owners many hundreds or thousands of dollars for the connection. For example, in the situation of competitive tender to service a particular development, Telstra may bid \$2500 for the developer to pay and a \$350 connection charge for end users. But a

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<sup>1</sup> We also query whether this is consistent with the Carriers' Powers and Immunities regime in Schedule 3 of Part 1 of the Act which provides that a carrier can access land to put in the required facilities.

competitor may bid \$2300 for the developer to pay but \$1500 for end users (which they may not be aware of until after they have built their house and seek to connect services). Obviously the non-Telstra bid is better for the developer but the Telstra bid is better overall. In addition, we note the amount Telstra can charge for connection to a voice telephony service is regulated by the price control regime under Part 9 of the Telecommunications (Consumer Protection and Service Standards) Act 1999 ("the CPSS Act"). Continuing this regulation on Telstra but not the wider FTTP industry could reduce competition if Telstra is prevented by the price controls from bidding competitively in the above scenario.

- The Position Paper states that a developer who considers it is not obliged to install fibre would be required to have auditable quotes from carriers which show that the price payable would be above the threshold. We caution that some level of "commonsense" should apply in that process. For example, FTTP providers who are located close to a development may have important local knowledge and be better equipped to service a particular development more cost effectively, as opposed to an FTTP provider who does not have any presence in the particular State or Territory where the development is located.

### **Exemptions**

Telstra supports the approach to exemptions, subject to the following comments:

- the requirement for "fibre to be available" as well as the alternative network needs to be carefully defined. If the end user's communications needs are met by the alternative network (e.g. PABX, traffic lights), requiring the installation of a fibre lead in which will not be used by the end user or infrastructure would be wasteful. In this context, "availability" should mean that the fibre network passes the premises so that the end user can readily decide in future to migrate to fibre;
- the exemptions should cover HFC networks. As raised in our submission to the Senate Inquiry on the Bill, HFC providers should be able to extend their networks into new developments to deliver pay TV.

### **Practical date of effect**

Telstra is concerned that the stage that has been chosen – Stage 3 – could result in significant delay in the Government's fibre objectives being achieved. The primary reason for Stage 3 to be chosen (over Stages 4 or 5) appears to have been to enable developers to include the cost of fibre in original costings for a project. However, using Stage 3 as the trigger point means that there will be a significant "tail" of real estate developments constructed after 1 July 2010 to which the fibre/fibre ready requirements do not apply – even though the deployment of fibre in those real estate developments may well be feasible. There will be many projects which may have only just commenced Stage 4 where soil may not be turned for many years but which, on the current proposal, will remain exempt from the new fibre requirement.

It is unclear how the Government's broadband commitment will be met in the future in relation to these developments. The proposed approach also increases the number of transitional lots to which a temporary solution will need to be provided pending deployment of fibre. As Telstra has already announced, it will not be deploying more copper because of the risk of stranding the investment, with the Government thus far not offering any compensation should this be the case. As a result, the practical effect of using Stage 3 as the

trigger for the fibre/fibre ready requirements is to increase the number of end users who are likely to be served by wireless in the interim.

Stage 3 is also inherently more difficult to define than Stages 4 or 5, which involve definite, single events (the obtaining of a statutory planning or subdivision approval) external to the developer. Stage 3 is really the preliminary work the developer undertakes prior to seeking Stage 4 approval. Stage 3 follows a different process and runs to different timing between individual developers, types of development and across States and Territories. The inherent difficulty of obtaining a certain and uniform trigger across all jurisdictions is acknowledged in the Position Paper. The Position Paper notes that more work is to be done with State and Territory Government's to determine and refine this criteria, however, very little time remains if the requirement is to commence from 1 July 2010. Given the critical role this definition will play in the legislation, Telstra is concerned about this timing and the current lack of detail regarding the trigger event.

If the Government maintains its view that developers should be given more lead time, the trigger should be defined as real estate developments which have not reached the conclusion of Stage 4 – that is, developments for which development approval or subdivision approval (as identified in the Six Stage Development Pipeline for Greenfield Development and Major Brownfield Redevelopment), for either the whole or only part of the development, has not been granted. So, rather than attempting to define Stage 3, the subordinate instrument instead would apply to real estate developments for which the Stage 4 planning consents have not been issued by 1 July 2010.

## **Specifications**

### ***Industry-based specifications, codes and standards***

Telstra repeats its concerns that the subordinate legislation proposes that NBN Co would be able to publish a document that would be legally binding on its competitors. This is highly unusual. Should NBN Co need to develop requirements to be applied to or adopted by the industry the appropriate mechanism is via the industry code process or by an industry standard prepared by the ACMA. The Bill proposes to extend the code and standards making process to fibre infrastructure in real estate development projects and this is the better way to ensure consistency, rather than to vest the NBN Co with the powers of a standards setter. There is no need for any NBN Co document to have an automatically binding legal effect outside of these two mechanisms.

We also query whether this proposed role for NBN Co is consistent with Australia's obligations under the WTO Telecommunications Reference Paper and the Telecommunications Chapters in bilateral Free Trade Agreements which relate to regulatory independence. We recommend that the Department obtains considered advice on this issue.

### ***Default objectives for fibre-ready facilities***

In Telstra's view, it is not clear what the reference to "enclosures" in the second last dot point is referring.

With respect to the last dot point, this requirement is open to significant interpretation. For example, Telstra's standard pipe sizes used for over 20 years allow existing copper cable to be overhauled with fibre cable. We have done this without difficulty in the Point Cook area. We would hope that our current designs would therefore be sufficient and would appreciate some further clarity on this point.



## **Fibre objectives for residential premises**

We repeat the list of requirements for fibre for residential premises and provide our comments in respect of each:

- *Support any-to-any connectivity (as defined in Schedule 1, Part 7 of the Act)*

Telstra agrees with the requirement that the fibre line be able to support carriage services which provide any-to-any connectivity. As noted above, we would interpret this requirement as ensuring that the network connects back to the broader network and hence indicates that backhaul needs to be included in the offering (as otherwise the network would not be able to provide any-to-any).

However, Telstra does not consider that the cross reference to Part 7 of Schedule 1 of the Act is correct – or at least complete. Part 7 deals with the specific situation where a carrier, in its capacity as an access seeker, is refusing to acquire an access service from the other carrier<sup>2</sup>. While this could be an issue, this is only one of the range of interconnection scenarios which together comprise any-to-any connectivity.

In Telstra's view, the better approach would be to simply refer to any-to-any connectivity. The term is well understood in the telecommunications industry. It is not, for example, defined when used in the long term interests of end users test under Part XIC of the Trade Practices Act 1974. If there was to be a cross reference, it should be to the connectivity test in the definition of Standard Telephone Service in section 6(2) of the CPSS Act. The most critical characteristic of FTTP networks will be to ensure that end users connected to a FTTP network can call and be called by anyone connected to any other network.

- *Support a Layer 2 access service consistent with those offered on the NBN*

NBN Co has released for consultation its view of the form of its layer 2 bitstream service(s)<sup>3</sup> and Telstra and other stakeholders have provided comments to NBN Co on that view. Telstra envisages that the process for a final formulation of the specification of that service will take some time, including some form of regulatory approval by the Australian Competition and Consumer Commission ("ACCC"). Only once the NBN access service is settled, will it be possible for Telstra and other providers of FTTP in new developments to review it and determine the extent to which it is an appropriate benchmark<sup>4</sup>. We also anticipate that the ACCC will have a view on this issue and may choose to determine a service description through a Part XIC declaration process. Once clarity on the form of the layer 2 service is obtained, Telstra would then need to "build" these specifications into its IT systems to enable supply. As such, although Telstra acknowledges the goal of a layer 2 access service consistent with that offered on the NBN, the path to achievement of that

<sup>2</sup> For example, a provider of 1800 services refuses to acquire from the operator of a FTTP network an origination service so that 1800 services are available to end users connected to the network.

<sup>3</sup> NBN Co Discussion Paper "Proposed wholesale fibre bitstream products" 12 February 2010.

<sup>4</sup> For example, NBN Co has indicated it will offer its wholesale Layer 2 bitstream product in two forms:

- a Local Ethernet Bitstream (**LEB**) product providing wholesale customers with a Layer-2 access service between the ONT at an end-user premises and a "local" Point of Interconnect (**Pol**), located at the "Fibre Access Node" (i.e. exchange or equipment building where the GPON Optical Line Terminal equipment is located) for the relevant Fibre Serving Area (**FSA**); and
- an Aggregated Ethernet Bitstream (**AEB**) product offered in rural areas where there are no contestable backhaul services below the Pol. The AEB product enables aggregated access to one or more FSAs via an aggregated link.

Both the LEB and AEB product offers would be based on an Ethernet platform, utilising Gigabit Passive Optical Network (**GPON**) as the physical access technology. The technology will deliver a range of active service features including security and Quality of Service (**QoS**) capability and IP multicast. The LEB product will not be available in FSAs that are serviced on an aggregated basis via the AEB product. Telstra disagrees with NBN Co's proposal to only offer its AEB product to the exclusion of its LEB product in regional areas.

goal is still subject to a great deal of uncertainty and is some time away. Therefore, Telstra does not consider that this requirement can be in place for 1 July 2010 but would need to be included at the relevant time.

- *Support a standard telephone service as defined in the Telecommunications (Consumer Protection and Service Standards) Act 1999;*

Telstra strongly endorses this requirement as voice telephony should be a standard feature of any FTTP network and does see this as being necessary from 1 July 2010. We note that over time this may be subsumed in the layer 2 access service requirements.

- *Support committed information rates for uploaded and downloaded data consistent with those offered on the NBN;*

These are not defined yet for the various classes of service to be offered by NBN Co and therefore inclusion of this item is not appropriate for a 1 July 2010 start date. Query whether this issue will also be subsumed in the layer 2 access service requirements. Therefore, Telstra recommends that this not be included until further clarity is received.

- *Be able to operate with an optical network terminal to which an uninterruptible power supply ("UPS") would be connected in a manner consistent with that required by the NBN;*

UPS is a device which converts the Direct Current output of a battery into 240v AC. This allows an AC powered ONT to be powered by the backup battery in the event of a power supply failure. Telstra supports giving end-users the choice of whether to use a UPS and notes that the Communications Alliance End User Premises Group is working on a detailed industry position on relevant aspects of a UPS option. Telstra suggests that this should be the appropriate reference point rather than an as yet unknown NBN requirement.

- *Support end-users accessing multiple concurrent retail providers of different retail services (e.g. telephony, internet, video) consistent with the operation of the NBN;*

For Telstra, this requirement will require considerable development, commencing from the time when NBN Co products are fully defined and agreed. In the interim, Telstra is able to offer a telephony and internet (broadband) product to two different retail service providers ("**RSPs**"). Telstra can confirm that from 2011, our ONT deployment will be consistent with NBN Co's current proposals on the minimum number of data (Ethernet) interfaces on each ONT. That is, there will be four Ethernet interfaces so up to four RSPs could be supported (one RSP per Ethernet port) when the product capability is developed. Therefore, although the principle of this requirement is supported, the start date is problematic.

- *Support the delivery of television services;*

It should not be mandatory to provide support for broadcast television services (e.g. digital free-to-air) either via an IP or RF solution. These arrangements should be based on commercial arrangements between the network provider and the developers and/or RSPs. In addition, this requirement is inconsistent with the statement on page 7 of the Position Paper that states that: "*The price would not include the provision of facilities to receive broadcast signals for redistribution within an estate. That is seen as an additional functionality that would be selected at the discretion of the developer.*"

- *Support a clear upgrade path consistent with that of the NBN;*

The upgrade path of the NBN is not known and therefore it is not possible to know whether this requirement can be supported by Telstra. Telstra can support this requirement if it refers to general GPON evolution. The design of the Optical Distribution Network (ODN) as defined in ITU-T standards for GPON, and optical wavelengths for GPON and 10G PON (ie XG-PON1), allows for an evolution from 2.5Gbps/1.2 Gbps GPON to 10Gbps/2.5Gbps GPON. Therefore, it is not appropriate to include this as a requirement.

- *Support open access for access seekers;*

Telstra is not opposed to the concept of open access, however, it is important to know what these requirements are expected to be and to ensure that sufficient time is provided to "build" these into business processes. Therefore, without further detail, it is not appropriate to include this as a requirement as at 1 July 2010.

- *Support appropriate traffic management and prioritisation arrangements;*

Telstra can currently support prioritised voice and 'best efforts' class of service for internet connectivity. Telstra will be able to support varying quality of services as we develop increased functionality of our network over the coming years.

- *Provide a fibre redundancy ratio consistent with that of the NBN; and*

FTTP providers in new developments should not be required to follow the fibre dimensioning rules proposed by NBN Co. NBN Co's current thoughts on provisioning are extremely generous and aimed at meeting whatever demands may arise over a very long term – say up to 50 years in the future. They are proposing fibre dimensioning and redundancy rules which would not be appropriate for residential estates where planning laws and size of lots mean that future sub-divisions are highly unlikely or much less than in some brownfields areas.

NBN Co's approach requires significant upfront CAPEX which may not consistent with the business model of the current FTTP industry players. A more modest dimensioning would still meet a reasonable expectation of future needs. Any unexpected future demand could be met at the time, allowing deferral of this possible expenditure and allowing use of whatever techniques and technology was available at that future point in time.

Telstra will use fibre provisioning/dimensioning rules taking into account industry best practice as well as taking into account alternative solutions and technology roadmaps to manage future growth. Therefore, it is not appropriate that this be included in the list of requirements.

- *Support a high level of reliability consistent with that of the NBN.*

Telstra is unable comment on this requirement until the NBN reliability parameters are understood. Therefore, it is not appropriate that this be included in the list of requirements as at 1 July 2010.

### ***Fibre objectives for non-residential premises***

Telstra repeats its strong concerns in relation to any move to regulate the highly competitive direct fibre to business market. Any additional requirements needed by business are best met through commercial negotiations.

Moreover, as is clear from above, there are a number of significant issues to work through in relation to the requirements for the residential market. Adding additional but non specific requirements with respect to non-residential premises will only increase uncertainty in what is currently a competitive market.