

Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010

**Comments to the Senate Standing Committee on
Environment, Communications and the Arts**

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1. Introduction

Engineers Australia is the peak body for engineering in Australia, representing all disciplines and branches of engineering. Engineers Australia has over 90,000 members Australia-wide making Engineers Australia the largest and most diverse engineering association in Australia. All Engineers Australia members are bound by a common commitment to promote engineering and to facilitate its practice for the common good.

Engineers Australia supports the Government in its steps to ensure that new (greenfield) developments be constructed with Fibre to the Premises connected as a requirement, subject to feasibility of connection to fibre backhaul and other reasonable commercial thresholds, and that other developments, subject to thresholds, be constructed as fibre ready.

Engineers Australia is pleased to be able to offer the following comments on the Bill.

2. Comments

Cost of residential fibre rollout in Greenfield developments

Engineers Australia considers that the actual cost for providing FTTP would appear to be little different from the cost now of meeting community expectations for reasonable telecommunications services in a new home. In particular, new homes are expected to support not only telephony and broadband data, but also PayTV and often security services.

The cost noted in the Explanatory Memorandum for fibre deployment of \$2,500 per residential premise has attracted considerable comment from the development industry. It is not clear what this cost includes and how this can be compared with existing costs.

The cost differential between copper and fibre is estimated at \$1500 in the Explanatory Memorandum. It would appear that these costs do not take account of costs for provision of optional PayTV using HFC or satellite technology, yet this is often a service that is expected and cannot be supported over telephony only cables.

Engineers Australia considers that an appropriate approach to the cost differential is to consider the current cost of providing all existing electronic services in comparable developments with a fibre deployment that replicates those services and to consider separately any additional costs to realise the added benefit (and any disadvantages) of optical fibre deployment. A particular benefit of fibre will be the ability to add extra services without the need for later adding extra lines.

A reasonable expectation for the purchaser of a new residence in a greenfield estate is to have access to telephone, fixed line data and cable (Pay) TV (Austar, Foxtel, SelecTV etc as applicable) typically all provided underground or by additional (retrofitted) satellite receiver (at a cost). PayTV is often reticulated as a CATV system from a common headend, which may also support broadband data services. The costs for providing this are included in the current developer costs and are recovered through sale of properties. The alternative is the retrofit of a satellite antenna (in relevant areas) which can be unsightly and at additional cost. The absence of adequate services makes the properties less attractive to purchasers and diminishes the value.

The cost of separately reticulating PayTV and fixed line copper may exceed the cost of reticulating fibre alone.

Fibre is already being installed in many new developments without compulsion due to the value attributed by potential purchasers of property. The cost of providing fibre on a large scale is expected to reduce fibre deployment costs. In many cases, the real issue is the differential cost between what is done now and what is proposed.

Interior cabling

The cost comparison should not include the cost of interior cabling except to the extent of replicating functionality in existing residential buildings (eg multiple telephone, TV outlets and security system connection). Smart meter connections should be considered separately. The main cost differences from an all copper solution and fibre is the cost of the Optical Network Termination (ONT) and associated power system. Deriving the full benefit of fibre connection will likely demand additional in house cabling or wireless LAN.

Backhaul cost

The Explanatory Memorandum correctly notes the cost of backhaul as being a significant variable depending on the nearest point of interconnection. Without backhaul fibre connectivity, the substantial data rates promised by FTTP are not feasible. Without backhaul fibre, the developments would fall into the 10% of premises to be connected by wireless or satellite.

Consideration of individual greenfield developments in isolation may not be appropriate, rather, they should be considered in the context of broader community plans. It also may be unreasonable for the burden of providing backhaul to fall entirely on the first mover. Some means of seeding backhaul through, for example, NBN Co, with funding recovered as additional users connect to the backhaul, should be considered.

Engineers Australia also notes the Government's expectation that NBN will deliver contestable backhaul for wireless base stations. The wireless case (for the 10% of premises to be connected by wireless or satellite) will also likely require backhaul fibre to base stations within reasonable proximity of customers, which is likely to be part of the NBN rollout investment where wireless broadband is necessary. Greenfield estates where backhaul is currently considered prohibitive (due to location of existing points of interconnect) should be able to consider the prospect of additional backhaul being provided as part of NBN rollout in reasonable proximity. Accordingly, such developments should be developed at least as fibre ready with provision for backhaul connection as soon as NBN can provide the connectivity through (for instance) the envisaged wireless base station backhaul network.

A question is whether NBN Co would facilitate designation of fibre connected wireless base stations as points of interconnection for a wholesale service suitable for interconnecting to a greenfield estate. This service could potentially adopt the Aggregated Ethernet Bitstream service of NBN. Redundancy arrangements for backhaul also need to be considered.

In the absence of fibre or wireless, developments would need to rely on satellite, the premium (installation and capitalised operating costs) for which could be offered as a subsidy for fibre connectivity in determining net cost for greenfield FTTP rollout (including backhaul).

Fibre Ready Infrastructure outside the Fibre Footprint

It can be argued that being outside a fibre footprint (now but maybe not later) should not be an argument in itself for not providing fibre ready infrastructure. Fibre could in any case be used for reticulating satellite TV feeds. The availability of fibre ready infrastructure enables the ready connection to fibre backhauled services when they become available.

Access Regime, Ownership and Responsibilities

Regarding access regime, ownership of fibre infrastructure in developments and maintenance responsibility matters will need to be clarified: fundamentally, the issue is to find solutions to these matters on the basis that fibre provides the best long term solution to meeting needs of developments.
