



Cables Downunder

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**The Secretary
Stephen Palethorpe
Senate Select Committee on the National Broadband Network
PO Box 6100
Parliament House
Canberra ACT 2600
Australia.**

SENATE SELECT COMMITTEE ON THE NBN

SUBMISSION TO THE FOURTH HEARING.

It must first be said that we are confused as to what is to be expected from the NBN. This is because there does not appear to be any concise or overall plan on its construction or use. Rather we hear a number of news releases or comments on different facets of the network. It would therefore appear that any planning is being made up as the project progresses.

In relation to the proposed legislation relating to the NBN we can find no problems as such. Our main concern is that conditions which were placed in the original legislation in 1997 relating to the intrusion of another overhead cable as a consequence of recommendations of “The 1998 Putting Cables Underground Working Group” were not watered down. This “Working Group” itself was as a consequence of the public protest at the erection of the “Optus” cable.

As a consequence we find ourselves asking a number of questions and making certain assumptions as shown below.

1. **WHAT IS THE PURPOSE OF THE NBN?** The NBN should be capable of carrying Telephony, Internet and Pay TV but to the best of our knowledge this has not been spelt out in any position paper or statement by the government. In fact listening to the rhetoric it has been sold purely on lightning fast Internet Speeds. Consequently we can only assume that Pay TV and Telephony will be included.
2. **SPEED.** Again what is lightning fast? The actual cable has a capability of delivering speeds of 1 Gigabit per second (or 1,000 Mega bits per second) but reading between the lines it will only be run at 100 Megabits per second or a tenth of the cables capacity.

Currently the Telstra/Foxtel cable can deliver 30 Megabits per second and has been upgraded to a capability of 100 Megabits per second in Melbourne. Work is now underway in Sydney and other locations to achieve the same result. This is the same speed that is envisaged for the NBN. The result is that we are getting a service which is in round figures three times faster where we could have a service which is 30 times faster all be it at slightly higher cost. How can this be called “Lightning Fast” or for that matter what is to differentiate the NBN from the upgraded Telstra / Foxtel HFC Network? As an example the Fibre network to be built by Google in the United States the speed will be 1 Gbit/s.

3. **BAND WIDTH OR CARRYING CAPACITY.** With the system running at 100 Mbit/s instead of 1 Gigabit per second you are getting a corresponding decrease in the carrying capacity of the network which in theoretical terms is by a factor of thirty. So we are not making economic use of the cable. WHY?
4. **COST & CONSTRUCTION TIME.** We have been told by a senior government Minister that the government has two imperatives:

A. That it be built as fast as possible.

B. That the network be built at minimum cost.

These issues are obviously being carried out for political imperatives and are a total disregard of reliability, serviceability, aesthetic considerations and the public's preference of underground cabling. To obtain a fully optimised and underground network at an achievable cost does it matter if it takes say seven years to construct instead of five? This would allow time to bury the cable and amortise the cost over a longer time frame.

When the issue of overseas experience of overhead Vs underground cables was raised The reply was it's a different demographic over there?

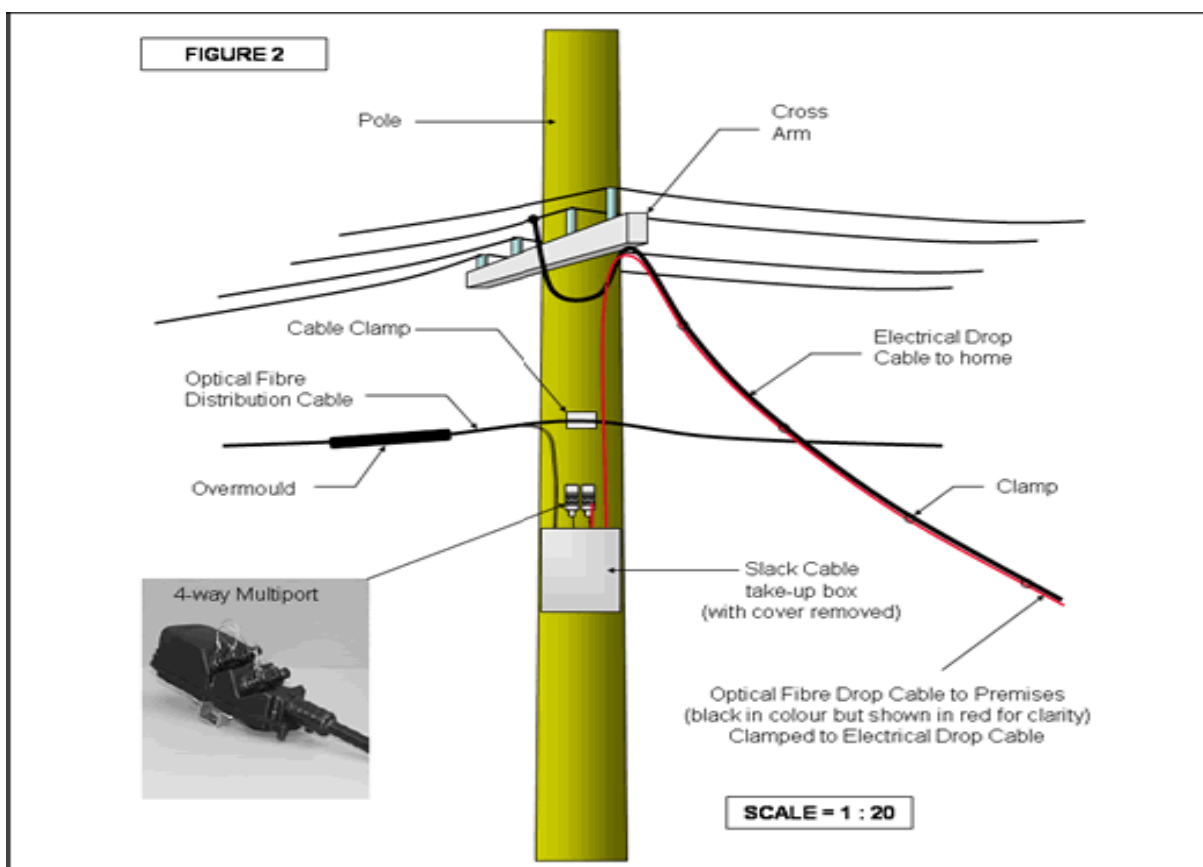
Finally when the issue of serious road injuries and fatalities and the part that Poles play in this were mentioned, we were told “that's a separate issue” Yet the more cables and services we hang from these poles the harder and more expensive they will be to get rid of! (Attachment 1)

5. **AERIAL Vs UNDERGROUND.** Minister Conroy has been reported as saying that this (Fibre Optic) cable is thinner than the Optus cable and will not have Amplifiers and other boxes attached to it so it will be more acceptable. However this ignores the Public preference for no more cables and the updating of our utilities up to accepted International standards by burying those that are already in existence. (Attachments 1 & 2) It also totally disregards road safety measures as pioneered by the Energy Authority of NSW in 1989 and the Swedish “Vision Zero” project which has had such resounding successes in Scandinavia, Europe, the UK and parts of the USA.
6. **PLAN.** It would appear that there is no overall plan and that it is being made up as it goes along.

7. **TELSTRA SPLIT UP.** In Telstra's own words, its copper or fixed line network is becoming less utilised as other technologies such as Mobile Phones and VOIP or Internet Phones become more common place. Therefore its revenue base from this infrastructure is falling. If this trend continues it must be assumed that eventually this network will become uneconomic. So should Telstra be encouraged to sell this network at a price which is not only fair but seen to be fair to the NBN so that its ducts and conduits can be used for the NBN? (You will note we said encouraged as opposed to forced to sell.) It is noted that Telstra and the NBN Co have agreed to replace the underground copper network in Point Cook Victoria with a fibre optic network using the existing Telstra ducts. However this approach is not without its own difficulties as in many cases it will be necessary to remove the copper cable before inserting the Fibre Optic cable. This will leave businesses and homes without communications facilities while this work is carried out.

8. **WHOLESALE Vs RETAIL.** There has been speculation that the NBN could also be a retailer as well as a wholesaler. This would appear to be a contradiction in terms as that is part of the argument for the breaking up of Telstra, to rid it of its monopoly status.

9. **OVERHEAD WIRING** On Page 43 Figure 2, Report on the Senate Select Committee, Third Senate Report, there is a depiction of the connection of a fibre optic cable to the premises where in the Fibre Cable is clipped to the Electricity lead in.



It should be noted that the majority of power and overhead communications failures occur in what is referred to as “The Last Mile” with the section between the mains and property being the

most susceptible to damage. It should also be noted that this electricity lead in has a life span of 40 years before which time it must be replaced. Currently this process is carried out quite economically time wise, even when the cable goes across the road to a second pole before finally being attached to the premises. However by attaching the fibre cable to the electricity cable it will require a retraining of the electricity Linesman, open the fibre cable up to a risk of damage and considerably lengthen the time taken to replace the Lead-in. This will result in increased costs and raises the question of who pays for the difference in cost and what the actual difference will be. Who will pay- NBN Co or the Power Utility?

In Perth on the 22Nd & 23Rd of March just past, storms disrupted power to 158,000 premises for several days. Perth Suburbs got off fairly lightly under the circumstances because of a WA Government initiative to bury power lines due to severe outages after a 1994 Storm. While this storm wrecked havoc on the Power Network, it must be recognised that overhead communications cables would have been just as badly affected. This makes it difficult for residents to call for assistance from emergency services and even family members and loved ones to contact each other to ensure that they were not badly affected and in need of assistance. It must also be realised that the Fibre Optic cable is more fragile than the wire cable so it must be expected that for overhead cables of this nature greater damage will result in raised repair or maintenance costs. (Refer Attachment 3)

Cables Downunder are in favour of this National Broadband Network but only if it is built properly and not a cheap and nasty solution for Political Expediency.

We would also prefer that the Government maintain a controlling interest in the NBN and that sovereignty of the network remains in Australian hands.

Yours faithfully.

Peter Downey

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