



# Cables Downunder

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## **Submission on aerial cabling and the National Broadband Network roll-out**

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### **Introduction**

Sydney Cables Downunder (SCDU) had its birth in 1996 during the Optus pay TV cable uproar.

During that period a number of groups sprang up in Sydney and Melbourne protesting against the erection of additional overhead cables in suburban streets for the provision of pay TV services to private residences.

Initially these groups operated independently but it was soon recognised that there was a need for cooperation and so SCDU was formed to coordinate the actions of these independent community based groups in the Sydney metropolitan area.

Initial protests were centred on the new OPTUS cable, but as events unfolded Telstra also began to erect an overhead pay TV cable and the protest was widened to include this cable.

Since those early days SCDU has evolved into a more pragmatic organisation with the recognition that as well as environmental issues there are sound economic and technical reasons for all overhead cables to be removed from suburban streets. Due to the number of enquires both interstate and intrastate the name was shortened to Cables Downunder (CDU) to better represent the

geographical spread of the organisation. Currently public demand from the electorate is not as visible as it was in 1996 yet public recognition of the problems has seen support increase.

Today, the issue of antiquated aerial cable is even broader and encompasses aspects of safety, reliability and economic concerns with the distribution of electricity and communication. On the basis of figures contained in the report, "*PUTTING CABLES UNDERGROUND*"(PCUG), CDU has been able to demonstrate that there are real tangible savings (eg underground cables are up to five times more reliable and cost 50% less to maintain) to be gained from the burial of the existing networks. A hundred years ago, as Sydney first began erecting overhead wires and cables, other great cities of the world were well advanced in burying theirs. In this respect Sydney now has a lot to do just to catch up.

CDU has not actively sought publicity for its cause; rather the main thrust has been to work cooperatively behind the scenes with the authorities responsible to find practical solutions.

In November 1998 Hornsby Shire Council passed a resolution (commonly referred to as "*The Hornsby Motion*") supporting the burial of overhead cables. This same resolution has now been passed by fourteen Sydney councils and the number continues to increase. Also, on three occasions, the Local Government Association of NSW (LGA) has passed similar motions of support at its Annual General Meetings. This is now official LGA policy.

## **Practical incident**

As this submission is being written (Wednesday August 12) there is an incident being reported on Sydney afternoon radio that a truck has hit a power pole on one of Sydney's main traffic arteries, Victoria Road, snapping the pole and throwing traffic in the northern suburbs into chaos. If this cable was part of the Government's proposed National Broadband Network (NBN) a large number of consumers would be without contact to the rest of the world. Further, while it is a simple matter to join a copper wire, the joining of a fragile glass fibre is a different matter which takes time, expensive equipment and a great deal of skill. This is multiplied many times over for a multi cored cable.

For anyone who follows traffic and energy events this is not an isolated incident, but one which happens on a regular basis. It is not just a matter of inconvenience or lost time and a traffic snarl. The real problem is a loss of power and communications, which in some cases could be life threatening. With the roll out of the NBN the cost of replacing the fibre optic cable will be immense in terms of cost, time and inconvenience as all strands will need to be individually reconnected.

## **Regulatory and public relations issues**

As a result of the PCUG there were a number of regulatory changes made to allay future public concern. Two of these were:

- No pay TV cable to be larger than 12 mm in diameter.
- All future aerial cable erections be required to have approval from the local authorities in the form of a Development Consent.

Even these regulations did not stop the existing carriers bundling up to eleven cables in some areas, a typical example being in North Rocks Rd, North Rocks, NSW. This makes a mockery of the claim of a single small diameter and unobtrusive cable.

## **National security**

During World War II William Charles Wentworth led an attack force in an Australian Army exercise. He landed his “enemy force” on one of the southern beaches of Sydney and began by attacking and shutting down the local telephone exchange. This confused the defending force as it had no communications and did not know where Wentworth’s forces were. This course continued until he reached Liverpool Exchange where it is reported he then voluntarily surrendered. Not before rendering most of Southern Sydney’s communications inoperative.

From time to time there are events such as bush fires which destroy aerial infrastructure such as power lines and communications cables. This not only represents a cost in replacement of this infrastructure but a cost to consumers, private and commercial, with the loss of services such as refrigeration and communication.

While Australia has a well developed communication’s network this often fails in times of fire due to the direct loss of aerial cabling and the loss of power as aerial cables come down. Unfortunately mobile phones and high frequency radio often fail also due the topography and those communications channels that are left often become overloaded. This lack of communication then disrupts information about the fire front, being relayed to the control centres which in turn also loose the ability to deploy fire fighting assets to the areas concerned. In respect to power, pumps required for the supply of water for domestic purposes as well as fighting the fires also fail. There are many examples of this going back as far as the “Black Friday” fires in Victoria on January 13, 1939. This fire which at times came close to the outskirts of Melbourne destroyed a great deal of both private and public assets as well as many miles of aerial telephone lines.

In more recent times we have had:

- The 1978 Westleigh NSW fire was started by falling overhead power lines in Dural around 11:00am and was finally stopped in Turramurra, in the heart of Sydney's North Shore, at around 5:00 pm the same day. This fire burnt down a number of power poles disrupting both power and communications. It also serves to show that not even our major cities are immune to such incidents.
- The 1994 Como/Jannali/Bonnet Bay fires in Sydney saw almost a whole suburb destroyed. According to local residents the worst part of the experience was the failure of power and communications in the area – the area has aerial power and copper cable telephone lines. The failure of these services isolated the affected suburbs in times of urgent need.
- At around the same time as the Como fire there were properties in the northern suburbs of Sydney which came under threat and again the power and communications failed as the poles were burnt down. This left many property owners with only a portable phone for communications. This, in most cases, was less than adequate as there was no power to charge the batteries and due to the hilly terrain were in many cases unable to receive a signal.
- The Canberra fires of 2003 saw vital communications, dependent on aerial cables, cut by the fire. It is noted that during this fire wires and cables in underground ducts survived intact but some were destroyed in underground pits or junctions as they had steel lids or covers. These lids and covers conveyed the heat into the pit melting the insulation. This problem could be easily fixed by retro fitting redesigned, insulated lids.

These are but a few incidents as most States of Australia suffer similar incidents every year. In February this year fires struck in Victoria destroying overhead communications assets and at times cutting off whole townships. This was totally unnecessary if only the cabling had been underground.

The problem is not just one created by bush fires. In 1999, in southern Sydney, severe storms did tremendous damage cutting overhead power and communications. In both November 2007 and February 2008 in Blacktown, an outer Sydney suburb, severe storms did tremendous damage and destroyed overhead power and communications cables leaving residents without power and communication for weeks.

It is not just a matter of these assets being destroyed but the physical and emotional damage that is created when communications are cut. On top of that there is the cost of and time taken to reinstate the service.

## **Occupational health and safety**

Currently electrical linesmen who already have a dangerous enough job have to make their way through up to three communications cables before they can reach the power cables. A fourth cable (NBN) will only make this task worse, if not impossible. Volunteer emergency workers have to crawl through live felled cables to rescue residents and save properties.

## **Greenhouse gasses**

Research has shown that direct emissions from aerial power cables are up to five times that emitted from underground cables resulting in increased greenhouse gasses and necessitating increased power generation to compensate for the losses.

## **The alternative**

All levels of Government in Australia should now be talking to each other with a view to rolling out both reliable and efficient nationwide broadband and an optimised power distribution system, using world's best practice delivery – underground cables. By doing this the cost is spread across authorities. As an example the Federal Government is proposing an expenditure of \$43 billion to rollout broadband while at the same time the NSW Government is proposing an expenditure of \$18 billion on upgrading its antiquated electricity distribution network. This latter expenditure, from what I understand does not include optimising the network. Surely there are economies and efficiencies to be obtained by both parties in working together for the betterment of the community and nation building.

## **Future problems.**

There is currently a great desire in the electorate for the current overhead cables and wires to be buried. The addition of another cable on the country's power poles will make this an even harder and more costly task to achieve. A simple search on the internet has shown that the lion's share of fibre optic cable networks in other countries, even in third world countries, has been rolled out underground.

In the last month senior members of CDU have been contacted by concerned members of the public who do not want to see any additional cables erected in their streets. There have even been threats made by some callers to rip down the cable should it be erected in their area. One such person threatened to attach a beam and hook to a heavy truck and to drive it down the street tearing down any cables he comes across. Others have threatened to throw a hook over the cable and to then pull it down with the aid of a four wheel drive.

CDU does not advocate violence. Whenever such threats are made we attempt to counsel the person concerned, however these are only the ones with whom we come in contact. We are only now starting to see the realisation in the community that there will be another aerial cable erected and are beginning to feel pressure to organise meetings and demonstrations against its erection. Should this occur, based on the Optus fiasco, it is highly predictable that there will be a substantial electoral backlash.

## **Nation building**

This network is too important and too big an investment not to be constructed using world's best practice and we urge the government not to roll out this cable aerially.

As the Prime Minister has stated the NBN is an example of true nation building. We have the Sydney Harbour Bridge which took seventy years to reach full capacity. This is a typical example of using world's best practice and looking to the future. Are we going to emulate the intentions of Premier Fuller and Mr Bradfield in building the Harbour Bridge or Premier Cahill in building the Sydney Opera House or is the job to be done on the cheap by taking short cuts leaving current and future communities to suffer the consequences? We simply cannot afford to take shortcuts with such an important piece of infrastructure, a piece of infrastructure which in some cases could be the difference between life and death.

The roll out of an aerial NBN is an arrogant approach to today's Australian community and an arrogant approach to the inheritance we leave the Australian community of tomorrow.

Yours faithfully

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