Cables Downunder

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Alison Kelly,
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SUPPLEMENTARY SUBMISSION.

Due to some of the Questions asked of me during my attendance before the committee on October 1 I would like to present an article and reader comments which recently appeared in the Web version of Computer world.

The Following has been cut and pasted from the magazine.
The link to the web site is:
http://www.computerworld.com.au/article/322137/nbn_underground_vs_overhead_cable_debate_rolls?eid=-22

Yours faithfully.

Peter Downey

Peter Downey
Chairman
Sydney Cables Downunder.

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NBN: **Underground vs overhead cable debate rolls on**
Industry experts weigh in on the argument
Kathryn Edwards 15 October, 2009 06:21
Tags: National Broadband Network (NBN), fibre optic, cables

As the National Broadband Network (NBN) construction chugs along in Tasmania, debate on the mainland continues as to whether laying the fibre optic cables underground is more advantageous than putting them in existing overhead infrastructure.

Layer 10 founder and NBN lead for the Communications Alliance, Paul Brooks, said the decision on rolling out NBN cabling overhead or underground is a business concern depending on local conditions in each area.

"There's a perception that underground cabling is more reliable, but that's not always true, underground cable can be damaged too," Brooks said.

"It's often cheaper to roll-out cable along the existing power lines, so there's incentive to do that in many areas from a carriers point of view, but if there's existing ducting and pipe work in the ground, then it will go underground. Ultimately it will come down to a cost decision."

Ovum research director, David Kennedy, said although it's expensive to do so, putting fibre optic cables underground does have maintenance advantages.

"That is in fact the case, cable exposed to the weather requires more maintenance and you don't need to be an engineer to realise that," he said.

Brooks said the majority of Tasmania's NBN roll-out is likely to go in overhead cables, due to the existing infrastructure in place by energy provider Aurora, who was also awarded the contract to build the first stage of the NBN.

Peter Downey, chairman of Sydney-based lobby group Cables Downunder, which is opposing the deployment of overhead cables, said the NBN cables must not be built overhead as that will increase running costs and reduce reliability.

“[The NBN] is so important that it must not be built on the cheap as this will increase running costs and reduce reliability,” he said.

After receiving harsh criticism in online forums for presenting unsubstantiated evidence on the issue at the Senate Select Committee, he defended his comments made during his time being questioned by the Committee on October 1.

Downey admitted he floundered at the hearing and that he had expected to see an engineering study presented to the Senate Committee outlining guidelines on how to proceed with the laying of cables.

“They don’t know what they’re doing, they haven’t put down a format and said ‘Here, comment on this.’ So whatever you put up is really hypothetical,” he told *Computerworld*.

Downey pointed to a 1998 report, written for the then communications minister Richard Alston, titled *Putting Cables Underground* as proof backing up his claims overhead cables are more costly to maintain than those deployed underground. Research presented in the report estimates the savings in maintenance costs from placing cables underground is $318 per kilometre of cable per year. However, the report does not take into consideration the advancements in technology and changes to the economy since 1998 and no recent evidence was referenced.

Federal communications minister, Senator Stephen Conroy, has said on record that community sensitivities relating to the rolling-out of overhead cabling will be taken into consideration.

Want to have your say?Email Computerworld or follow @computerworldau on Twitter and let us know.

Comments

Wed, 21/10/2009 - 04:34 — Keepleft (Australia) (not verified)

Power poles (and associated

Power poles (and associated cabling) are hideously ugly. For network security over the long term, bury the damned lot.

Drive along a street, then imagine the same street without any power poles!

- reply

Tue, 20/10/2009 - 10:45 — Anonymous (not verified)

Reliability! Surely that

Reliability! Surely that word must have been in the minds of the decision makers at some stage when they initially considered rolling out the NBN. But there again, it couldn't have been if they are even considering an aerial roll out. One only needs to look what happened during the Victorain bushfires.

- reply

Tue, 20/10/2009 - 08:31 — Anonymous (not verified)

Here We go again. Vested

Here We go again. Vested interests and politicians, What else could you expect?
Do they expect us to be grateful for OPTUS MK II ?
Pigs might fly!

- reply

Mon, 19/10/2009 - 07:31 — Anonymous (not verified)

Retro Australia Nation Builds

Retro Australia Nation Builds - In the 1800's there were telegraph poles supporting the communication system of the time, telegraph wires. Later in that century there was a need to roll out wires to support the newly introduced power source, electricity. Telegraph poles were seen as the quick, cheap means of roll out. Telegraph poles then became power poles. During the 1900's many western countries strove to make their electricity distribution systems more reliable, safer and less costly to maintain by ridding themselves of the power poles and undergounding their wires. Australia continued to string its wires aerially on the old telegraph poles. Come the 21st century and Australia now plans to nation build and introduce the communication system of the future. Are we looking to make it safe, reliable and cost efficient to maintain. No we are going retro and turning our power poles back into the telegraph poles of the 1800's. Only Australia could nation build in the twenty first century using the technology of the 1800's. Make sense? I'll let you answer that!

- reply

Sun, 18/10/2009 - 10:51 — ReallyReallyFedUp (not verified)

It will be very interesting

It will be very interesting to see just how much 3rd world 'spagetti-junction' type overhead NBN cabling will be rolled out in Canberra as opposed to throughout the rest of OZ...? Then perhaps it will finally become clear to the rest of us ie, 'the great unwashed' that indeed, our political illuminati say, "let them go and eat cake"...!

- reply

Sat, 17/10/2009 - 21:20 — Kilroy (not verified)

Hann, name anyone who is

Hann, name anyone who is genuinely happy with overhead cables?

Dont argue for the sake of it. 43 billion and leave it hanging around? no one has whinged about the price yet. we all know its going to be expensive. lets just hope its not expensive and vulnerable. hope being the operative word, apparently; judging by the article..

- reply

Sat, 17/10/2009 - 14:26 — Peter Downey

HI RL. For your information

HI RL.

For your information the Lobby Group Cables Downunder was originally formed to fight the Optus Roll out but switched its focus to "Power Lines" because it makes no sense to get rid of one cable and leave the rest. In 2001 we actually had the NSW Government have an inquiry into this issue at a cost of $124,000. While the technical aspects of the enquiry were brilliant The Economists in and employed by IPART made a complete mess of it and were obviously heavily biased against the issue. The result is that the then Premier Bob Carr asked for an achievable scheme to bury all cables and got a report instead saying why they should not be buried.
In this case if the NBN goes overhead you will have another vested interest who will oppose the Burial of Electricity cables as it will take away their supporting structure, The Power Poles.
Currently the communications legislation reads that if the Power Lines are buried the communications cables must also be buried with in Six Months. Watch that be changed if the NBN goes overhead.

- edit
- reply

Sat, 17/10/2009 - 12:51 — Anonymous (not verified)

What inteligencia thought

What inteligencia thought this overhead idea up?
Don't they realize people want to get rid of this overhead junk?
Whenever I have overseas members of my family or friends come to visit it is a source of

amazement and even ridicule. So much for the SMART country.
Seems like something dreamy up by a committee of Politicians with not an engineer in sight!

- reply

Sat, 17/10/2009 - 11:01 — ilma (not verified)

Wake up to reality about

Wake up to reality about costs - underground cable SAVES money - modern duct trenching techniques are simple, and LOW maintenance once installed. They don't get damaged by winds, storms, bushfires, hoon drivers, car crashes, oversize lorries etc. No wood rot requiring replacements. No broken wires from bird risk and damage. And NO huge bills every year as chainsaw thugs brutalise street trees, destroying vital carbon-keeping green canopy so overhead wires can hold sway over neighbourhoods and streetscapes.
And maintenance issues for NBN are even more cost-critical because fibre-optic isn't as simple as copper cable. String it up along existing power lines and every repair becomes an OH&S nightmare. Not just for worker safety - but the poles weren't built to take that kind of load anyhow. Some of the crossbars are held in place just one fitting.
Reading last year's tender submissions, it's clear that telco's haven't a clue on the REAL logistics involved long term. As for the NBN itself - what's the point of having high speed broadband in the first place if users can't get onto the network for hours at a time because "the wires are down in a windstorm" or it's suddenly kaput when some car totals itself round a pole. And guess what: wires melt, wood burns - powerlines were early OUT's in both the Black Saturday and Canberra bushfires.
If we're going to spend $43 billion on NBN, it had better be goof-proof, climate proof, drunk-driver proof and available 24/7 - not "swingin' in the wind".
Undergrounding cables isn't an option or extra cost - it's essential COMMONSENSE.

- reply

Fri, 16/10/2009 - 15:47 — Louis Thevenin (not verified)

The NBN has been presented to

The NBN has been presented to us as an expensive necessity for the modernisation of our nation.

But what gives me real doubts as to the wisdom of the project and its powerful advocates is the plan to hang this costly "state of the art" technology off super-cheap, superannuated, horse and buggy-era power poles.

What kind of lunacy is this?

It's like designing spaceship with a crank starter.

- reply

Fri, 16/10/2009 - 13:44 — Anonymous (not verified)

Save your breath ! This has

Save your breath ! This has got absolutely nothing to do with logic or (un)common sense, and everything, to do with rolling out the NBN at the cheapest possible cost. I can hardly wait to hear

the bleatings and finger wagging of our illustrious politicians, complaining about the absolutely intolerable levels of their shiny new NBN's downtime, after they have forced its implementation via overhead power poles. IDIOTS.....!!!

- reply

Fri, 16/10/2009 - 11:43 — Ian (not verified)

Compelling case for

Compelling case for undergrounding.

There is extensive information on the table in Australia which show that undergrounding is both a superior technical and at least long term cost solution for delivery of power and other cabling. Benefits are extensive without simply referring to the cosmetic, from reduction in injuries, deaths and disruptions from road accidents; reduced transmission losses; reduced maintenance costs due to weather deterioration; reduced threat from fire damage ... we can go on.

The resistance in Australia is startling as undergrounding appears to be best practise almost anywhere else in the world.

- reply

Thu, 15/10/2009 - 21:07 — AD of Sydney (not verified)

Surely, if we're going to

Surely, if we're going to spend billions of (taxpayer) dollars, does it make any sense to leave it vulnerable? Would only take a drunk driver crashing into a pole, to leave a neighbour disconnected and bereft of what is only going to become an ever increasing vital infrastructure.

In places where no such ducting is already available, wouldn't it make more sense to "bite the bullet" (as it were), and when digging trenches, make them big enough to future expansion. Maybe even sub-lease space to electricity suppliers as a way of perhaps encouraging the eventual eradication of these dangerous eyesores from our streets? Wouldn’t that be a wonderful extra benefit from the use of public money?

- reply

Thu, 15/10/2009 - 16:07 — Vermicious Knid (not verified)

They are being buried, well

They are being buried, well at least in Sydney anyway.
But it's slow going.

- reply

Thu, 15/10/2009 - 14:54 — tarq (not verified)

Having worked on overhead

Having worked on overhead Telco networks for the last 15 years i can say an overhead fibre in sydney gets broken on average once a week. In 90% of cases you are running fibres at least 500m between splices the costs and time involved in this extremly high, trucks to be rolled,splicing times,traffic control. Also there is the question of Condemed poles from power authorities on average there is between 350 to 500 pole changes a month you would have to create slack points all over the overhead network to accomadate for fibres to reach the new poles stood in my opinion a very costly excercise to erect but even more to maintain for the years after.

- reply

Thu, 15/10/2009 - 13:41 — RL (not verified)

All I can say is why haven't

All I can say is why haven't the electricity cables been buried underground yet? Nobody complains about powerlines but everyone's complaining about the fibre-optic cables being hung overhead. What gives?

- reply

Thu, 15/10/2009 - 10:18 — Hann (not verified)

Sure a lobby can insist on

Sure a lobby can insist on the underground option, but are they willing to pay for it, or are every other taxpayer that is happy with overhead cables willing to be subsidising them?

If a council objects demands underground cabling, then NBN services to that area will have to be priced according. Residents cannot cry foul over their price hick given that they caused it in the first place. NBNCo has to operate as a viable business, not a charity.

- reply

Post new comment

Your name: Peter Downey