

To the Department of Communications and the Arts
GPO Box 2154
Canberra ACT 2601

Submission response—Possible amendments to telecommunications powers and immunities

This submission can be published on the World Wide Web

Yes

Date of submission

Wednesday, 19 July 2017

Name and contact details of person making submission

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General comments

My concerns are that if the Act is amended, this will provide telecommunications carriers with unprecedented installation of radio antennas and associated equipment anywhere they deem necessary. In the United States of America, 5G radio antenna arrays are currently being installed on every second power line pole in residential streets and some are located only a metre or two away from residential windows, thereby creating a significant health hazard to the building's occupants. But who cares?

As none of the effects of this millimetre-wave technology have been analysed in any way—and as radiation from mobile phones and smart meter installations has caused significant impacts on many people's health throughout the world, my comments here are meant to highlight these issues and to thereby help you determine a way forward where the health of the citizens of Australia is also respected in the review of this Act.

In regards to the answers I have provided in this document, I have taken the assumption that the Act is being reviewed prior to the forthcoming rollout of 5G mobile phone facilities throughout Australia, which the industry is requesting so as to provide it with far more easy access to private property and dispute resolutions. If I am wrong in this assumption, then please consider my views nevertheless.

Responses

The Australian Government seeks views on possible amendments to telecommunications carrier powers and immunities. In particular, the Government seeks views on:

Proposed amendments to the Telecommunications (Low-impact Facilities) Determination 1997

1. Definition of co-located facilities

1.1 Are there any issues with this proposed clarification to the definition of co-location?

To simply assume that adding additional transmission facilities to existing site facilities is merely a matter of "...greater volume [and] the levels of noise..." assumes that public health from the effects of this technology is of no consequence to the government or to the carriers.

Urban areas are being saturated with Electro-Magnetic Radiation (EMR) from many sources – and there have been many peer-reviewed studies conducted that prove EMR from mobile phones and towers is detrimental to human health. To add additional 4G technology to existing installations would be bad enough. To impose the unproven 5G transmissions without knowing the health effects such a technology will cause on local residents is being naïve at least, and breaking the Constitution at worst:

Section 51 and sub-section xxiiiA of the Constitution says:

*(xxiiiA) the provision of maternity allowances, widows' pensions, child endowment, employment, **pharmaceutical**, sickness and hospital benefits, medical and dental services (**but not so as to authorize any form of civil conscription**), benefits to students and family allowances;*

The highlighted words above mean that no person, corporation or government agency is allowed to "authorize any form of civil conscription" upon the people of Australia using *pharmaceutical* goods. In the late 19th century when the constitution was being framed, the technology of producing radio waves was in its infancy and its health dangers were unknown. The threat to human health from EMR could never have been foreseen by the Constitutional lawyers – yet they did see that government might one day try to force pharmaceutical goods on the population against their will. In this sense we can read "pharmaceutical" as being akin to EMR.

It is on this point in the Constitution that I believe forcing even more EMR into the community without having proven it is first safe is illegal, and therefore breaks Section 51 sub-section xxiiiA of the Constitution. In this, I request that all further expansion of Australia's mobile phone network be halted until a thorough examination of the peer-reviewed evidence has been undertaken and the risks properly assessed.

2. Local government heritage overlays

2.1 Are there any issues with this clarification in relation to local government heritage overlays?

No comment

3. Radio shrouds as an ancillary facility

3.1 Should radio shrouds be considered ancillary facilities to low-impact facilities, or should radio shrouds be listed as distinct facilities in the Schedule of the LIFD?

Shrouds such as imitating brick structures, palm tree branches and such like serve their place in visible pollution reduction—but the harm to human health from these antennas is of greater concern than that of shrouds.

3.2 If listed as distinct facilities in the Schedule of the LIFD, should there be any criteria for radio shrouds, for example in terms of size and dimensions?

No comment

4. Size of radiocommunications and satellite dishes

- 4.1 Are there any issues with permitting 2.4 metre subscriber radiocommunications dishes (or terminal antennas) in rural and industrial areas (LIFD Schedule, Part 1, Item 1A)?

No comment

- 4.2 Are there any issues with permitting other 2.4 metre radiocommunications dishes in rural and industrial areas, including those located on telecommunications structures (LIFD Schedule, Part 1, Item 5A)?

No comment

5. Maximum heights of antenna protrusions on buildings

- 5.1 Is a 5 metre protrusion height acceptable, or is there a more appropriate height?

No comment

- 5.2 Are higher protrusions more acceptable in some areas than others? Could protrusions higher than 5 metres be allowed in industrial and rural areas?

No comment

6. Use of omnidirectional antennas in residential and commercial areas

- 6.1 Are there any issues with permitting omnidirectional antennas in residential and commercial areas, in addition to industrial and rural areas?

There have been installations observed where mobile phone radio antennas are mounted only a few meters above ground and are therefore very dangerous to human health. An example of this is the tower located in Portarlington Victoria (below) where the antenna array is not much higher than the first story building as seen to the left in the image below.



Also, it has been proven in many peer-reviewed studies that mobile phone towers cause "[cancer clusters](#)" to occur.

14 die of cancer in seven years living next to phone mast with highest radiation levels in UK

By [Rebecca Camber for the Daily Mail](#)

Updated: 20:15 +10:00, 23 June 2008

Fourteen people living within a mile of a mobile phone mast that emits one of the highest levels of radiation in the country have died of cancer.

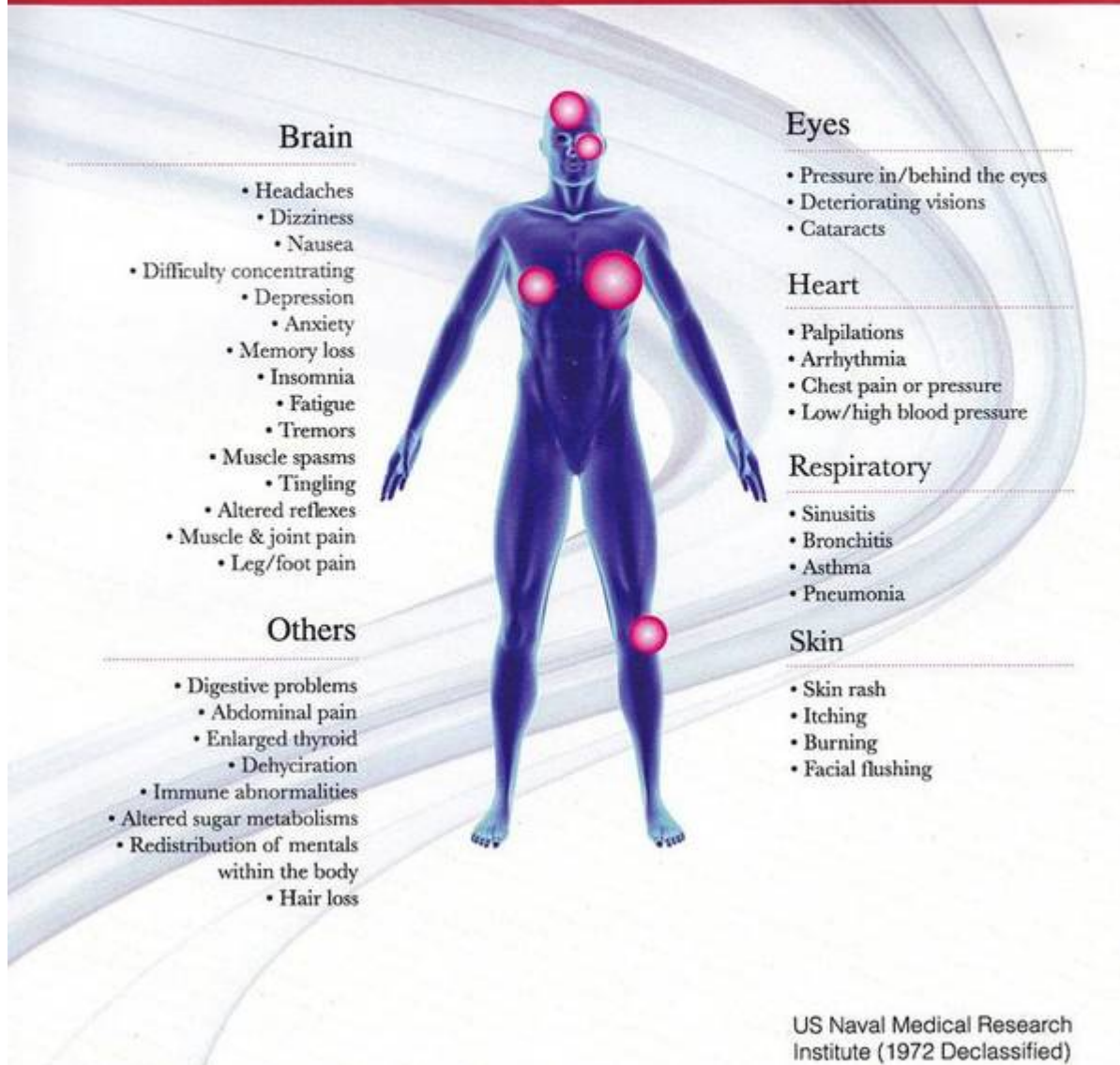
Four of the deaths have been in a cul-de-sac yards from the site.

A further 20 residents have developed tumours in the last seven years, although they have survived.



Read more: <http://www.dailymail.co.uk/health/article-1027699/14-die-cancer-seven-years-living-phone-mast-highest-radiation-levels-UK.html#ixzz4n3PFmvm9>

Are you experiencing **SYMPTOMS** of **EXPOSURE** to radiation?



<https://au.pinterest.com/pin/277323289529149521>

7. Radiocommunications facilities

7.1 Does the proposed approach raise any issues?

No comment.

7.2 Are the proposed dimensions for these facilities appropriate?

No comment

8. Equipment installed inside a non-residential structure in residential areas

- 8.1 Should carriers be able to enter land (including buildings) to install facilities in existing structures not used for residential purposes in residential areas?

It seems the Act together with the proposed amendments are aimed to facilitate easy access for telecommunications personnel "...to install facilities inside structures" whether they are hazardous to human health or not.

There have been reports witnessed in newspaper and other media where appeals have been made about certain facilities being installed on or near residential communities, and the community's concerns have been rejected. <http://www.farmonline.com.au/story/3588483/nbn-co-skips-councils-to-build-towers/>

My point here is that although consideration should be given to the rolling out of new technology into the community, it should NOT be rolled out without the community's right to discussion and appeal prior to the work commencing. It is on this basis that I object to the proposed amendment in Section 8.

9. Tower extensions in commercial areas

- 9.1 Are there any issues permitting tower height extensions of up to five metres in commercial areas?

The conglomeration of antenna masts on single mast facilities not only causes a visual eyesore, but also allows high levels of EMR to impact those who live or work close to these transmitting sites.

There has to be a limit of **HOW MUCH EMR** is allowed to be emitted from a single transmission site. Such a site may be more economic to establish and able to accommodate multiple carrier's transmission antenna arrays, but **the impact on human health** from the combined radiation seems to be completely overlooked by the government, the industry and the regulators.

10. Radiocommunications lens antennas

- 10.1 Is lens antenna the best term to describe this type of antenna?

A "Parabolic Dish Antenna" is more appropriate.

- 10.2 Are 4 cubic metres in volume and 5 metres of protrusion from structures appropriate?

No comment

- 10.3 Should this type of antenna be allowed in all areas, or restricted to only industrial and rural areas?

As the 'dish' is for point-to-point communications and its power is generally very low compared to the mobile phone antennas, I cannot see there being any objection to the use of these antennas other than their size.

11. Cabinets for tower equipment

- 11.1 Are there any issues with the proposed new cabinet type?

In the USA, the new 5G cell towers are being placed outside resident's houses on street power poles, and the power supply and communications equipment needed to operate this facility is disguised as a post box – as shown in the image below.

Please note the antenna array circled in red, and the electronic equipment housing arrowed in the image below.



Typical small cell distribution within city commercial district.

I therefore object to such equipment invading residential areas. Not only will the future 5G masts likely to be installed at upper-storey bedroom heights, but such facilities will be mounted at every second power pole on every street. Such a high volume of infrastructure that is most likely to be proven more harmful to human health than 4G transmissions should not be allowed until all the risks to the community's health and visual pollution have been assessed.

12. Size of solar panels used to power telecommunications facilities

- 12.1 Are there any issues with permitting 12.5 square metre solar panels for telecommunications facilities in rural areas?

No comment

13. Amount of trench that can be open to install a conduit or cable

- 13.1 Are there reasons not to increase the length of trench that can be open at any time from 100m to 200m in residential areas?

No comment

- 13.2 Is 200m an appropriate length, or should the length be higher if more than 200m of conduit or cabling can be laid per day and the trench closed?

No comment

14. Cable & conduit installation on or under bridges

- 14.1 Are there any issues with allowing cable and conduit on bridges to be low-impact facilities?

No comment

15. Volume restrictions on co-located facilities

- 15.1 Are there any issues with removing volume limits for adding co-located facilities to existing facilities and public utility structures in commercial areas?

No comment

- 15.2 Are there any issues with permitting new co-located facilities that are up to 50 per cent of the volume of the original facility or public utility structure in residential areas?

No comment

- 15.3 Is another volume limit more appropriate in commercial or residential areas?

No comment

- 15.4 Should alternative arrangements for co-located facilities be developed in the LIFD?

No comment

16. Updates to environmental legislation references in the LIFD

- 16.1 Are there any issues with the proposed updates?

As the levels of radiation from mobile phone facilities are increasing at an unregulated rate and therefore causing harm to the health of people living or working near to these facilities, I believe that rather than changing the existing regulations to allow the industry to become more deregulated, the time has arrived for more regulation to take into account the impact more radiation is having not only on human health, but on insects such as bees need for pollination of crops; animals (both farmed and domestic) and especially other living creatures that we depend upon for food production.

- 16.2 Are there any further suggestions for updates to terms and references in the LIFD?

No comment

Proposed amendments to the Telecommunications Code of Practice 1997

17. Clarify requirements for joint venture arrangements

- 17.1 Are there any issues with making it clear in the Tel Code that only one carrier's signature is required on documents for facilities being installed as part of a carrier joint venture arrangement?

I am for more regulation rather than for less regulation based upon my comments in Point 16.1 above.

18. LAAN objection periods

- 18.1 Is it reasonable to end the objection period for low-impact facility activities and maintenance work according to when the notice was issued, rather than the date work is expected to commence?

Again, the proposed amendments are aimed to favour the carrier and their commercial interests above the right of other stakeholders – those in the community. I believe that 20 business days should be provided for objections to be received by stakeholders, and sufficient time within the remaining period should enable them to obtain expert advice regarding the proposed works.

To limit the right of stakeholders to 5 business days notice highlights the bullying approach the carriers want to inflict on anyone who objects to their proposals.

- 18.2 Is 5 business days from the receipt of a notice a sufficient time period for land owners and occupiers to object to carrier activities where carriers have given more than 10 days' notice about planned activities?

NO! Please refer to my comments in 18.1 above.

19. Allow carriers to refer land owner and occupier objections to the TIO

- 19.1 Are there any issues with allowing carriers to refer objections to the TIO before land owners and occupiers have requested them to?

Although there may be perceived benefits to the carriers in obtaining a quicker dispute resolution process through this amendment, the focus should be on whether each stakeholder's interests are being met – not just appear to be met.

If the TIO were given additional scope to investigate the impact that additional EMR facilities would have on people affected by the proposed works, then doing anything to expedite a faster resolution to the community's complaints about probable radiation sickness would be a worthwhile change. However, because the TIO do not investigate such provisions (probably because it is industry funded and therefore NOT an independent body), it can only be seen as a means to allow the carriers to obtain the approval they seek rather than implementing a just process where the complainant's broader concerns can be properly examined.

In a word, my response to this question is No.

20. Updates to references in the Tel Code

- 20.1 Are there any issues with the proposed changes?

No comment

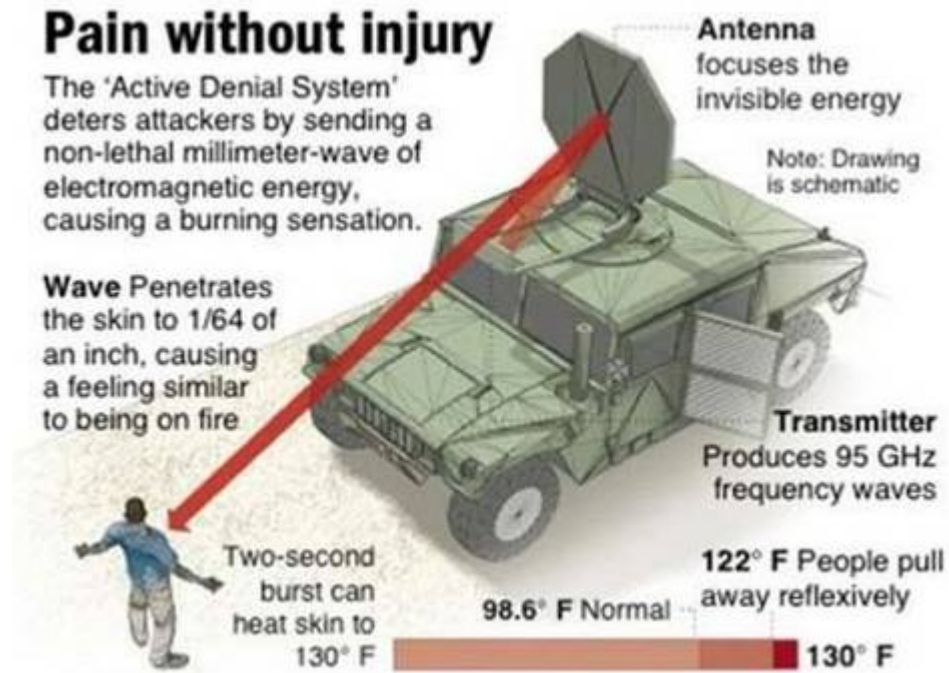
- 20.2 Are there any further suggestions for updates to the Tel Code?

On page 24 of the reference document, the following statement is made:

QUOTE "References to Australian Standard AS 2772.1 (1990) Radiofrequency Radiation (Part 1): Maximum Exposure Level-100kHz-300GHz need to be replaced with references

to the Australian Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields—3kHz to 300GHz (RPS3).” UNQUOTE

Modern defence technology has developed “non-lethal” crowd control systems that utilise 90 Ghz (millimetre) wave technology. See the image below to gain an appreciation of what frequencies these weapons employ using this millimetre wave spectrum that can inflict injury on human health.



<http://breakingdefense.com/2013/11/raytheon-non-lethal-heat-beam-tackles-new-missions/>

To quote from an internet article about radiated power from millimetre wave antennas into people’s homes (shown in the green circles in the image below), the following statements are made.



QUOTE: “Quite simply, 5G is an over-hyped bait and switch tactic by the Wireless Industry to deploy 4G/LTE so-called Small Cell cell phone towers everywhere. Small Cells are just a marketing/branding lie because Small Cells are full-power cell phone towers that the Industry wants to deploy much too close to people and other living organisms in residential neighborhoods — **as close as 10-15 feet from 2nd story windows**” (below).



This is the chilling observation: [these planning documents](#) for the recently installed [4G Palo Alto Small cells](#), show that even though the RF/MW radiation calculations were made for 6 watts of input power, the **actual input power for each small cell antenna is 300 to 500 Watts** and the “associated equipment” power supply cabinet is **17.5 cubic feet** — one for each antenna!

*Similar documents for a 2017 Verizon 4G Small Cell deployment in Weston, MA state that each antenna outputs **1,257 Watts of Effective Radiated Power (ERP)**, a significant RF/MW radiation exposure. These military-grade RF/MW radiation exposures do not belong in residential zones not matter what over-the-rainbow promises are being made about 5G by those who wish to profit for 4G/5G Distributed Antenna Systems (DAS) installations everywhere.” UNQUOTE*

Given that the military use millimetre wave technology for crowd control, it is concerning that the telecommunications industry in Australia is seeking to have “Australian Standard AS 2772.1 (1990) Radiofrequency Radiation (Part 1): Maximum Exposure Level-100kHz-300GHz need to be replaced with references to the Australian Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields—3kHz to 300GHz (RPS3)”

As the ARPANSA standard (RPS3) referred to above fails to provide any limits on actual peak power allowed to be emitted into the community from radio transmission equipment, it refers to the ICNIRP standard from which I have extracted the relevant section below:

Table 5. Basic restrictions for power density for frequencies between 10 and 300 GHz.^a

| Exposure characteristics | Power density (W m ⁻²) |
|--------------------------|------------------------------------|
| Occupational exposure | 50 |
| General public | 10 |

^a Note:

1. Power densities are to be averaged over any 20 cm² of exposed area and any 68/ $f^{1.05}$ -min period (where f is in GHz) to compensate for progressively shorter penetration depth as the frequency increases.
2. Spatial maximum power densities, averaged over 1 cm², should not exceed 20 times the values above.

<http://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>

From this grossly outdated (but current) 1998 document, it states that 10 watts per square centimetre is allowable radiation for general public exposure for microwave frequencies between the ranges 10 to 300 GHz.

This is a HUGE amount of microwave power that the carriers will be allowed to LEGALLY inflict on their communities! Such levels of microwave power exceed that of microwave ovens by huge amounts, and possibly exceed the power levels used in military equipment for crowd control; so how will people in such communities cope if such high levels of radiation are allowed to be emitted from these new towers – especially if the antenna's are allowed to be placed a few meters from people's homes?

I strongly urge you to view this 9-minute YouTube video titled "Cell Towers and Cancer Dr. Martin Blank, Bio-initiative Report", where he explains that 1 milliwatt (or 1,000 microwatts) per square centimetre of EMR is way too high for what many scientists believe should be lowered to 1 microwatt per square centimetre currently being experienced in countries outside of Australia!

<https://www.youtube.com/watch?v=a6wLFelrCtU>

Therefore, it is my recommendation that more definitive limits be placed on carriers as to the maximum allowable output of each mobile phone facility's transmitter, together with the associated antenna's radiated power. Such reductions should be changed to a more realistic value, as stated by Dr. Blank.

I also recommend that proper scientific studies be undertaken to ascertain the accumulated levels of EMR the general public is being exposed to around the existing masts, which the carriers now want to extend to so as to add more transmitting facilities. Such a study to determine the biological impact such facilities are having on human health is long overdue.

Possible amendments to the *Telecommunications Act 1997*

21. Allowing some types of poles to be low-impact facilities

21.1 Is it reasonable for poles in rural areas for telecommunications and electricity cabling for telecommunications networks to be low-impact facilities?

One again, as the carriers are more concerned about "...underground cabling would be required, which is more expensive" rather than allowing proper environmental and other considerations of the installation, I believe there should be no change to the current Act regarding this.

21.2 Should low-impact facility poles be allowed in other areas, or be restricted to rural areas?

All poles carrying communications facilities should be restricted to rural areas.

21.3 Is the proposed size restriction of up to 12 metres high with a diameter of up to 500mm suitable?

No comment

21.4 Would the existing notification and objection processes for land owners and occupiers in the Tel Code be sufficient, or should there be additional consultation requirements?

Given the impact that EMR from the NBN and mobile phone radiation is having on human health in both in urban and regional areas, I believe more restrictions on future installations should be considered rather than reducing or eliminating the current limitations.

22. Portable temporary communications facilities

22.1 - Are there any issues with making portable temporary communications equipment exempt from state and territory planning approvals under certain conditions?

No comment

22.2 - Are there any suggestions for appropriate conditions for the installation of COWs and SatCOWs, such as circumstances in which they can be used and timeframes for their removal?

No comment

22.3 - Should the Act be amended to remove any doubt that MEOs can be installed using the maintenance powers or another power under Schedule 3 of the Act?

No comment

22.4 - Are there any suggestions for appropriate conditions for the installation of MEOs if the maintenance powers are amended?

No comment

23. Replacement mobile towers

23.1 Is the proposal reasonable?

No comment

23.2 Is 20 metres a suitable distance restriction for replacement towers?

No comment

23.3 Is 12 weeks a reasonable maximum time period for installation of replacement towers?

No comment

24. Tower height extensions

24.1 Are one-off 10 metre tower height extensions suitable in commercial, industrial and rural areas, or only some of these areas? If they are only suitable in some areas, which are they and why?

I think a 10-metre tower extension to an existing installation is ridiculous. If an existing installation can be extended by 10-metres to allow for multiple carriers to install their antenna facilities on the extension, then again my concerns are more about the impact the increased levels of EMR will have on the health of the community than any other factors.

It is clear to me that the carriers have no concerns about the accumulated levels of EMR being emitted into the communities they provide services for.