



*Living more safely with
electromagnetic radiation*

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Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

Inquiry into the Telecommunications Amendment (Mobile Phone Towers) Bill 2011

Dear Secretary

Thank you for the opportunity to provide comment on the above Bill. I do so as the Deputy Chair of the Communications Alliance committee revising the 'Code for the Deployment of Mobile Phone Network Infrastructure', as community representative on the ARPANSA EME Reference Group, as author of two books on electromagnetic radiation and publisher for fifteen years of the quarterly report *EMR and Health*.

There is an urgent need to revise legislation relevant to the construction of radiocommunications and telecommunications infrastructure. Existing legislation is deficient in the following regards.

1. Inconsistencies in legislation

Current legislation is convoluted and inconsistent. For example:

- The Code for the Deployment of Radiocommunications Infrastructure applies only to telecommunications carriers but not to companies constructing infrastructure that emits similar radiation-emitting infrastructure, such as broadcast equipment or radio masts for 'smart' meter technologies.
- The Telecommunications (Low-impact Facilities) Determination 1997 exempts some telecommunications equipment from local government planning, even though the radiation they emit may be equivalent to that emitted by non-Low Impact Facilities.

2. Abrogation of democratic process

Existing telecommunications legislation effectively disempowers the community. The general public has no legal rights whatsoever when it comes to the location of infrastructure within its own neighbourhood.

The ACIF Code for the Deployment of Radiocommunications Infrastructure effectively ensures that communities receive adequate notification about facilities at new sites. It does not oblige carriers to take any notice whatsoever of community feedback.

This is a violation of the community's democratic rights.

3. Radiofrequency radiation

Telecommunications and radiocommunications infrastructure emit radiofrequency radiation that was classed by the International Agency for Research on Cancer as a class 2B carcinogen in May 2011. There are studies that show adverse effects on communities living near telecommunications transmitters and some people are known to be more sensitive to this radiation than others.

Existing legislation requires that carriers merely comply with the ARPANSA Standard, the 'Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3 kHz to 300 GHz (2002)'. However, this standard is inadequate to protect human health for the following reasons:

- It protects only against the short-term, acute, heating effects of radiofrequency radiation and not the long-term, nonheating effects that are relevant for people living or working near telecommunications transmitters.
- It addresses effects of single exposure situations – not exposures to cumulative frequencies and cumulative toxins with which the environment is replete.
- It fails to consider the effects on particularly vulnerable populations, such as those who are hypersensitive to this radiation or have cancer. (Cancer cells are more conductive than normal cells.¹)
- There are no long-term studies of the effects of radiofrequency radiation on human populations.
- Scientific studies have found adverse effects on the body, suggestive of illness, at levels of exposure thousands of times lower than the ARPANSA standard.²

There may be large numbers of people in Australia adversely affected by radiofrequency radiation at present. The Australian government has no information on this phenomenon because it has no mechanism for observing and recording it.

4. Role of the government

The Australian government has a duty of care to the Australian public, to future generations and to the environment that supports humanity.

However, in the matter of telecommunications infrastructure, it has demonstrated itself to be biased towards the telecommunications industry at the expense of the

¹ Joines WT et al, 'Microwave power absorption differences between normal and malignant tissue', *Int J Radiat Oncol Biol Phys*.1980 Jun;6(6):681-7.

² BioInitiative Working Group, 'BioInitiative Report', 2007, www.bioinitiative.org

community, public health and the environment. For example, the telecommunications industry has been involved in:

- the Standards Australia TE7 committee
- the ARPANSA working group for the 2002 RF standard
- the NHMRC committee that allocated funding for research on the health effects of radiocommunications infrastructure
- the Australian Centre for RF Bioeffects Research (ACRBR)
- the Australian Communications Industry Forum (ACIF) Code for the Deployment of Radiocommunications Infrastructure and the Communications Alliance revision of that Code, effective from July.

The Federal government is the recipient of substantial revenue from the telecommunications industry. It is predicted to receive up to \$4 billion dollars for the renewal of carrier spectrum licences and additional income is expected from the sale of spectrum in the 700 MHz band ³.

In order to demonstrate impartiality, the Senate Committee undertaking this inquiry would be advised to accept evidence from witnesses who do not directly profit from the propagation of the telecommunications network. We note that witnesses at the hearing of 17 February are all affiliated with either government agencies or the telecommunications industry. This does not encourage the public perception that the Inquiry is addressing, or interested in addressing public interest.

The witnesses invited to address the inquiry are:

- ALTHAUS, Mr Chris, Chief Executive Officer, Australian Mobile Telecommunications Association
- CHEAH, Mr Chris, Authority Member, Australian Communications and Media Authority
- COLTON, Dr Imogen, Manager, Carrier Powers and Immunities, Department of Broadband, Communications and the Digital Economy
- JOHNS, Mr Michael, Project Manager, Communications Alliance Ltd
- LARSSON, Dr Carl-Magnus, Chief Executive Officer, Australian Radiation Protection and Nuclear Safety Agency
- LONEY, Mr Mark, Acting General Manager, Communications Infrastructure Division, Australian Communications and Media Authority
- MARTIN, Dr Lindsay, Manager, Non-Ionising Radiation, Radiation Health Services, Australian Radiation Protection and Nuclear Safety Agency
- MASON, Mr Philip, Assistant Secretary, NBN Regulation Branch, NBN Infrastructure, Department of Broadband, Communications and the Digital Economy
- McKENZIE, Mr Ray, Manager, Mobile Carriers Forum, Australian Mobile Telecommunications Association
- QUINLIVAN, Mr Daryl, Deputy Secretary, Infrastructure Group, Department of Broadband, Communications and the Digital Economy
- STANTON, Mr John Leslie, Chief Executive Officer, Communications Alliance Ltd

5. Responsibility

³ *Australian* 02.01.12; *Australian Financial Review* 10.02.12

It is incumbent on the Inquiry to address the issue of responsibility for the long-term impacts of telecommunications technology.

It is premature to presume that the radiation it emits is safe. In the event that it is a public health risk, who will bear the cost of litigation and of reconstituting Australia's communications network? Does the Australian government have insurance to cover this eventuality or does it require carriers to do so?

I suggest that the public health burden of smoking, asbestos and lead are nothing compared to burden that society will face from exposure to radiofrequency radiation should it be proven to cause or contribute to health problems.

Accordingly, there is an urgent need to address existing telecommunications legislation. I would like to congratulate Mr Wilkie for proposing amendments to this legislation, in order to help address public concerns.

We submit the following comments on the proposed amendments.

1. Extension of obligations

I support the extension of the obligations under schedule 3 of the Act to agents of carriers who install or maintain facilities.

I request a further extension of these obligations to other entities who install or maintain radiofrequency radiation-emitting infrastructure for communications, such as electricity companies who construct radio networks for the operation of smart meters.

2. Exemption from Low Impact Facilities Determination

I support the exemption for 'towers' from the Low Impact Facilities Determination.

3. Definition of 'Maintenance'

I support a definition of 'Maintenance' that excludes infrastructure that will increase the level of electromagnetic radiation emitted by a facility.

4. Ministerial Code of Practice

I support the concept of a Ministerial Code of Practice to apply to all telecommunications carriers, their agents and those bodies who construct radio communications networks such as electricity utilities.

I propose that the amended Communications Alliance 'Mobile Phone Base Station Deployment' (the revised version of the ACIF 'Code for the Deployment of Mobile Phone Network Infrastructure') be adopted for this purpose with amendments (below). The purpose for this is that the Code requires that carriers adopt a precautionary approach when designing, siting and operating infrastructure and it specifies a very high standard for notifying and engaging with communities for new sites. However, it does not apply to facilities that require council approval and requirements for establishing facilities at existing sites are less rigorous. Applying it to all facilities would ensure a high standard of notification and consistency for all infrastructure.

The proposed amendments to the Code are as follows.

- a) The Consultation requirements in section six of the Code apply to new and existing sites for low impact and non-low impact facilities.
- b) An independent body be created to make judgments about whether and how a facility proposal is to proceed based on the outcome of the community consultation process.

The purpose of this is that, for non-DA facilities, carriers are the arbiter on whether or not to take community feedback into account and commercial incentives generally outweigh community interests and health concerns.

5. Community-sensitive sites

The proposed bill requires that facilities cannot be located within 200 metres of community sensitive sites.

I submit that this amendment would not ensure a reduction in EMR exposure because a carrier, who locates a base station at 200 metres from a sensitive location, can simply turn up the power of the transmitter to ensure the same coverage at the sensitive location. In other words, the proposal does not ensure lower-EMR exposures at sensitive locations, which was the purpose of introducing sensitive locations in the original ACIF Code.

6. Facilities maps

I support the proposal for ACMA to provide maps of the locations of telecommunications facilities.

I propose this map is extended to include the locations of other radiofrequency radiation-emitting facilities, including smart meter tower networks, paging networks and so on.

7. Role of the ACMA

The bill proposes that the Ministerial Code of Practice allow complaints to the ACMA.

I believe it is important to establish an alternative body which will be empowered and willing to address complaints and to arbitrate in disputes,

8. Compliance with the standard

The legislation should include a provision that the ACMA, as regulator, be able to demonstrate that the emissions of all RF-radiation emitting facilities (inside and outside the home) comply with the ARPANSA RF standard in any given location. The ACMA's ability to licence radiofrequency radiation-emitting infrastructure must be contingent upon its ability to demonstrate this compliance.

The cumulative emissions of all RF-radiation emitting facilities need to be taken in to account especially, as this is not addressed in the standard.

Further, I reiterate the inadequacies of the ARPANSA standard to protect public health from the long-term, low-level, chronic exposures that occur with telecommunications infrastructure. In the event that low-level exposures from base

stations do produce carcinogenic outcomes in the long-term, I propose that the legislation requires carriers to guarantee compensation to those thus affected.

I thank you for your consideration of these comments.

Yours faithfully

Lyn McLean
Managing Director