

Submission in response to Telecommunications (Enhancing Community Consultation) Bill 2011

I make the following points in relation to supporting this Bill:

- There has been a proliferation of wireless technologies and their infrastructure worldwide.
- The INCIRP¹ standard which came into force in 1998 is outdated and has failed to take into account the explosion of electromagnetic radiation (**EMR**) via mobiles, towers and every other example of hardware that emits EMR since that date.
- We need to balance the new emerging technology with health risks to not only humans but also flora and fauna.
- The impact of EMR on vulnerable groups such as children, the elderly and pregnant women has never been studied.
- EMR emission standards need to be revised. However in the interim the Australian government needs to legislate to curb and control telecommunications companies in relation to placement of mobile phone facilities. They have been allowed to operate in a self-regulated environment. The government has tacitly accepted that the economic imperative of telecommunication companies is more important than the potential health risks to the community posed by EMR.
- When telcos call mobile phone facilities “low impact”, they are referring to visual impact not the health impact.²
- Mobile phone antennae and other communications antennae emit EMR. This radiation is similar to that emitted by mobile telephones, and though lower in power, is radiated for much longer - up to 24 hours a day, 7 days a week.³
- In Australia, the regulator ARPANSA⁴, allow telcos to emit EMR to the maximum level (100%) of the international standard (ICNIRP), which is 450uw/cm2. Other countries with emission standards much lower than ours are: Switzerland - 1%, Poland - 2%, Italy less than - 20%, Russia - 20%, Belgium -25%. In France, the French Government agency COMOP is currently trialling much lower levels of EMR (in the

¹ International Commission on Non-Ionising Radiation Protection. Commission set up to examine adverse effects of non-ionising radiation on humans.

² See www.notowersnearschools.com website

³ www.notowersnearschools.com

⁴ Australian Radiation Protection and Nuclear Safety Agency.

region of 1-2% of the ICNIRP standard) in 17 cities in varied terrain and population densities. The trial began in late 2010 and more than 230 cities volunteered to participate.⁵

- The maximum level of EMR exposure for the general public in the European countries, referred to above, is more conservative and dramatically lower than maximum level of EMR emissions set for Australia by ARPANSA, being 100%.
- Once they have installed antennae, telcos are permitted to increase EMR emissions from these antennae over time, at their discretion, to meet the consumer demand for coverage, up to the maximum limit of the current standard.
- In support of lowering the international standard is a paper published in 2011 called the "Seletun Statement". It is a paper by a leading panel of scientists from all over the world that met in Seletun, Norway in 2009. The panel is chaired by Dr Olle Johansson, Karolinska Institute, Dept of Neuroscience, Sweden.
- To put it in a nutshell, it states that due to the magnitude of the proliferation of wireless technologies and their infrastructure, the ICNIRP standard (from 1998) in relation to EMR emissions is out of date, and also specifically children are at risk, even at low levels of emissions. The scientists have called for an urgent review of the standard which they say, has not taken into account, amongst other things, vulnerable groups such as the elderly, pregnant women and children.
- Furthermore, if a tower or low impact facility becomes a "co-location site", whereby other telcos are able to share the same site (as encouraged by the legislation), EMR emissions increase cumulatively.
- Scientific evidence suggests there are health impacts for all of us living within a 400m radius of EMR transmitters such as these antennae.⁶

⁵ "AN ANALYSIS OF REGULATORY FRAMEWORKS FOR WIRELESS COMMUNICATIONS, SOCIETAL CONCERNS AND RISK: THE CASE OF RADIO FREQUENCY (RF) ALLOCATION AND LICENSING" Haim Mazar (Madjar) Director of Studies; Dr. Peter Hough; Supporting Supervisor: Pr. David Ball; Adviser to the supervisory team: Dr. June Burnham. School of Health and Social Sciences, Middlesex University. August 2008.

⁶ www.notowersnearschools.com

- The ACIF Code⁷ encourages telcos to use the **“precautionary approach”** when selecting sites for these facilities, including **“avoiding community sensitive sites such as schools.”**
- The Department of Education’s policy “Mobile Telecommunications Facilities”, states under item 3.1, in relation to mobile phone facilities, that **“the Department has a preference for a distance of at least 500 metres from the boundary of the property”**.
- Due to the lack of veracity of the current INCIRP standard, as adopted by Australia, we should legislate to have a more ordered approach to placement of mobile phone facilities, more community consultation and less ad hoc placement due to the unfettered discretion the telcos have to place their hardware anywhere they see fit.
- Children absorb EMR at a much higher rate than adults, as their skulls have not completely formed.⁸
- EMR has been associated with a number of harmful effects - ranging from brain tumours to oxidative stress, genetic damage, hormonal changes and changes to neurotransmitters, memory, learning and behaviour.
- Some surveys have found that people more exposed to radiation from mobile phone antennae experience uncomfortable symptoms - such as headaches, nausea, fatigue, sleep problems, concentration problems, depression and loss of libido. **These effects have been found at levels of EMR many hundreds of times lower than levels approved by international guidelines and standards.**⁹

Cancer clusters around mobile phone facilities (towers)

The following is a list of studies and reports relating to cancer clusters and other illnesses being reported in the vicinity of mobile telephone transmitters:

⁷ ACIF C564: 2004 Deployment of Mobile Phone Network Infrastructure Industry Code. Optus are not bound by this Code, it is a set of guidelines whereby compliance by telcos is voluntary.

⁸ (www.notowersnearschools.com)

⁹ EMR Australia Pty Ltd website. EMR Australia provides services to support public health and assist people to make informed choices about Electromagnetic radiation.

- UK: In 2002, Tory leader Iain Duncan Smith called for an urgent government probe into the link between mobile phone masts and cancer after it emerged that people living in five of the seven homes surrounding Forest House in Carnarvon Road, South Woodford, which has 16 masts on its roof, have contracted cancer."¹⁰ The... incidence of leukaemia near the South Woodford mast is far higher than would be expected normally, according to the statistics. There was a significant decline in the incidence of all cancers the further residents lived away from the mast.
- UK: In April 2007 The Sunday Times reported that seven clusters of cancer and other serious illnesses have been discovered around mobile phone towers in the UK, raising concerns over the technology's potential impact on health there.
- PARIS, FRANCE: In 2003 Telecom giant Orange has suspended operations at a school phone mast site in Paris after eight cases of cancer were confirmed among children in the district.
- WALES: Near Cardiff in Wales, at least eight residents in the parish of St Georges and St Brides have died of cancer in the past five years. In every one of the 10 houses on a residential street close to the Sandy Heath transmitter in Bedfordshire, there has been a cancer death."¹¹
- US: In 2006 17 people around a mobile phone tower in Norfolk County in the US reported symptoms of microwave sickness – including headaches, fatigue, nausea and dizziness since the installation of the tower. The tower is to be removed."¹²
- An industry funded study found in 1997 that of the mice exposed to EMR, 43% developed cancer, compared to 22% in the control group.¹³ This was regarded by biomedical scientists around the world as highly significant. "...it may indicate that in individuals genetically predisposed to certain forms of cancer, the long-term intermittent exposure to RF such as those used by mobile phones may be an

¹⁰ ZDNet.co.uk, 2002 cited by article "Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

¹¹ Ibid

¹² EMR and Health: Vol 2 No 3, 2006. cited by article "Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

¹³ Repacholi, M., 1997, Lymphomas in Eμ-Pim1 transgenic mice exposed to pulsed 900 MHz electromagnetic fields, *Radiat Res* 1997; 147 (5): 631 - 640 cited by article "Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

important stimulus in the induction of malignancy.” Peter French, Principal Scientific Officer, Centre for Immunology, St Vincent’s Hospital, Sydney.”¹⁴

- In the UK in 1999, analysis conducted for The Sunday Times by Professor Gordon Stewart, one of Britain's leading epidemiologists, shows there may be a significant increase in the risk of cancers, including leukaemia, associated with mobile phone masts. The study revealed an increased incidence of cancer within up to 7km of masts. Subsequent inquiries have unearthed possible clusters in London, Bedfordshire, south Wales and the Midlands. People in one area near the mast were found to be 33 per cent more likely to suffer from cancer.
- Studies of the sites show high incidences of cancer, brain haemorrhages and high blood pressure within a radius of 400 yards of mobile phone towers. One of the studies, in Warwickshire, showed a cluster of 31 cancers around a single street. A quarter of the 30 staff at a special school within sight of the 90ft high mast have developed tumours since 2000, while another quarter have suffered significant health problems. The tower was pulled down by the mobile phone company after the presentation of the evidence by local protesters. While rejecting any links to ill-health, the company admitted the decision was “clearly rare and unusual”.
- A health survey carried out in La Ñora, Murcia, Spain, in 2004, around two GSM mobile phone towers, showed “statistically significant positive exposure-response associations between the E-field and fatigue, irritability, headaches, nausea, loss of appetite, sleeping disorder, depressive tendency, feeling of discomfort, difficulty in concentration, loss of memory, visual disorder, dizziness and cardiovascular problems.”¹⁵
- According to the Mast Sanity group in the UK, 47 cancer clusters have been reported around schools in Spain.
- A study instigated by the President of the Federal Agency for Radiation Protection in Germany from 1999 until 2004, found that after five years operation of the mobile

¹⁴ EMR Inquiry: Chapter 2, p. 83, 2001, Op cit

¹⁵ Oberfeld, et al, 2004: The Microwave Syndrome: Further Aspects of a Spanish Study cited by article Electromagnetic Radiation and potential adverse health effects” October 2007, Sarah Benson published on www.ecolibria.com.au

phone tower, the relative risk of getting cancer had trebled for the residents of the area in the proximity of the tower compared to the residents outside the area."¹⁶

- Two epidemiological studies carried out in 2004, around transmitters in Israel,, concluded that there was a threefold increase of cancers within a 400 m radius of transmitters. For breast cancer, a tenfold increase was found. As a result, two lawsuits were filed for 33 people who lived close to phone towers and consequently contracted cancer and leukaemia in that year. "¹⁷
- In 2006, an Egyptian study found that "Inhabitants living near mobile phone base stations are at risk of developing neuropsychiatric problems and changes in the performance of neurobehavioral functions – either by facilitation or inhibition".¹⁸
- In France, researchers found that people living within 300 m of a base station suffered from tiredness, headaches, sleep disruption, and within 100 m irritability, depression, loss of memory, dizziness, and loss of libido.¹⁹
- To conclude, there is evidence of sickness due to EMR. It is a travesty if the Australian government does not legislate to empower its citizens to prevent for example, involuntary exposure to EMR specifically in relation to proposed sites near schools and create an environment where individuals have more say about their community.

¹⁶ Eger, H., et al, 2004: The influences of being physically near a cell phone transmission mast on the incidence of cancer: Umwelt Medizin Gesellschaft, 2004. cited by article Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

¹⁷ Wolf and Wolf, 2004: Increased Incidence of Cancer near a Cell Phone Transmitter Station, International Journal of Cancer Prevention, Vol 1, No 2. cited by article Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

¹⁸ Abdel-Rassoul, G., et al 2006: Neurobehavioral effects among inhabitants around mobile base stations,, NeuroToxicology, doi:10.1016/j.neuro.012 cited by article Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au

¹⁹ Santini, R., et al, 2002: Study of the health of people living in the vicinity of mobile phone base stations: Influences of distance and sex, Pathol Biol 50: 369-73. cited by article Electromagnetic Radiation and potential adverse health effects" October 2007, Sarah Benson published on www.ecolibria.com.au