

To: Australian Energy Market Commission (AEMC)

Please find herewith an objection to your draft proposal for legislative changes to electricity metering that would see smart meters deployed much more widely by 2030. This accelerated programme and its application to New South Wales is not acceptable to my family, nor to my neighbours, for the reasons as listed in this correspondence.

Question: What is the frequency of radiation emitted by smart meters?

Answer: 2.45 GHz. This was conservatively classified by the IARC (International Agency for Research on Cancer) as a potential human Group 2B Carcinogen (the same as lead) in 2011. Since then, world class scientists have called for its upgrade to a **probable human Carcinogen**; there is strong evidence for doing so.

The Risks of Your Proposal

Scientific literature indicates that my family and I, including my little grandchildren, are faced with considerable increased health risks as a result of your proposal for continuous radiation emissions of 2.45 GHz within my home and its environment. Most peer reviewed studies on radio frequency non-ionising radiation (RFR) conclude that “human health and well-being may be under significant threat from wireless technologies. These studies focus on RFR exposures from existing 3G 4G 5G systems, WIFI and Bluetooth. (Di Ciaula 2018, Miligi 2019, Russell 2018, Kostoff et al 2020, Barnes and Greenebaum 2020).

Professor Emeritus Anthony B Miller writes: “Thus to avoid a potential epidemic of cancer caused by radio frequency fields from WIFI and other devices, we **should introduce means to reduce exposure as much as reasonably achievable, use hard-wire connections on the internet and strengthen the codes that are meant to protect the public.**”

Tom Butler Professor of Information Systems, Governance, Risk & Compliance:

Professor Butler in his report “Wireless Technologies and the Risk of Adverse Health Effects in Society: A Retrospective Ethical Risk Analysis of Health and Safety Guidelines” concludes that:

*“The introduction and widespread use of wireless digital technologies in **society date from innovations in the 1970s and 1980s. At no point was there a cost benefit analysis of wireless technologies that weighted the apparent benefits of enhanced communication and information access and exchange against the unintended consequences of, and risks to, human health.** Driven by “technological fundamentalism”, and the general belief that digital technology is neutral, and therefore carries no unintended consequences or risks, politicians, policymakers, and society were willingly misled by the telecommunications industry in the US, UK, and Europe into believing that wireless technologies were and are safe. The ICNIRP, IEEE, FCC, and FDA are complicit in this.*

*“What should have happened when the risks were identified by the US Naval Medical Research Institute, and verified by subsequent studies, is that governments should have limited the scope of technological change in line with independent scientific research on thermal and non-thermal risks. Professor Nassim Taleb argues, “our record of understanding risk in complex systems has been pitiful, we keep making the same mistake, and there is nothing to convince me that we have gotten better at risk management” (Taleb, 2012). **This is certainly the case where the risks to public health from RFR exposure are concerned.***

“Page 29 ... But first we need to combat the deceit and denial of vested interests. We need to ensure that politicians and policy makers inform themselves of the full facts, not only the industry perspective, and to ensure that they act ethically and in the interest of public health and well-being.”

Professor Butler, Excerpt from his “Abstract”:

*Regarding the ICNIRP Guidelines: “For reasons that are unclear to concerned scientists, guidelines (for exposure) from the 1990s remain unchanged. **The study finds potentially unethical behaviour in a variety of institutional and organisational actors, the consequence of which is a significant risk to the health and wellbeing of adults and children.**”*

Electromagnetic Radiation and the Heart

As I have had a quadruple heart bypass operation in the past, I should not be exposed to 2.45 GHz of electromagnetic radiation as proposed by the installation of smart meters *without an option to “opt-out”*. The following testimony by Senior Canadian Cardiologist Dr Hugh Scully sets out his concerns that EMR is increasingly creating health problems.

“Dr Hugh Scully Testimony to the City of Toronto
**(Past President of Ontario Medical Association, Past President of Canadian Medical Association,
Past President of Canadian Cardiovascular Society)**

“As a physician leader in Canada with a great commitment to the health of Canadians, I am very concerned about the increasing evidence internationally that EMR is creating increasing health problems in our population as its use increases exponentially. This is particularly true among children and young Canadians, and teachers and nurses who are continuously exposed to WiFi routers in schools [and hospitals].

“As a cardiac specialist, I am concerned that approximately 20% of people have detrimental cardiac rhythm sensitivity to EMR.

“This issue is under active consideration by the Health and Public Policy Committee of the Royal College of Physicians and Surgeons of Canada, the Health Policy and Public Health Committees of the Canadian Medical Association and the Council of Family Physicians of Canada, the Canadian Paediatric Society and the Canadian Cardiovascular Society.

*“There is an abundance of evidence from around the world that EMR can be harmful to health. Many countries...not Canada or the United States...have initiated policies to mitigate the risks. We, in Canada, need to do the same or more. **It is imperative that City of Toronto does not install WiFi's in public parks and spaces.** I ask you to vote against Councillor Matlow's proposal.*

*Sincerely, Dr. Hugh Scully,
BA,MD,MSc,FRSC[C],FACS
Professor of Surgery and Health Policy, University of Toronto, Past-President”*

Each of these four types of cardiac effects, tachycardia, arrhythmias, bradycardia and heart palpitations involves aberrations in the electrical control of the heartbeat. How can these be produced?

“EMF-produced bradycardia and chronic arrhythmias are likely to be caused by heart-failure-like changes that particularly impact the sino-atrial node of the heart, including the tissue remodelling found in heart failure. This model has been confirmed by Liu et al who found that **pulsed microwave frequency EMF produced tissue remodelling that specifically impacted the sino-atrial node of the heart with remodelling changes similar to those found in heart failure.** Heart failure develops in a cumulative fashion and based on current medicine at least, is an irreversible process involving tissue remodelling and a large number of biochemical and physiological changes. **It seems likely, therefore, that the EMF effects on the heart are both cumulative and irreversible.**”*

**(Liu YQ, Gao YB, Dong J, Yao BW, Zhao L, Peng RY. 2015 Pathological changes in the sinoatrial node tissues of rats caused by pulsed microwave exposure. Biomed Environ Sci 28:72- 75)*

The above by *Liu et al* raises further questions such as, **“What is the level of detriment to the human body that has undergone radio-therapy which makes the body more susceptible to all radiation exposure including ultraviolet radiation damage?”** Where are the studies? Your proposal for smart meters has raised a minefield!

Keeping our families safe does NOT involve the installation of smart meters. Lack of input by medical professionals in your proposal raises alarms. Professor Martin Blank has explained:

*“We know from a wide range of research studies that electricity and magnetism are fundamental forces that interact with charged particles i.e. primarily with electrons in our cells. The organism, in reaction to these conditions, produces the **cellular stress response**, a DNA mechanism that is activated by many potentially harmful stimuli (e.g. high and low temperatures, changes in pH, toxic metals). **In other words, cells react to EMF as potentially harmful).***

“Stress protein synthesis starts with activation of DNA. Higher RF-EMF levels can cause chemical changes in DNA that lead to mutations and cancer and other abnormal biological processes (e.g. development and growth of tumours.) In other words, cells react to EMF as potentially harmful.

*“Biological systems are affected by a wide range of EMF frequencies, including ELF, RF, and MW (microwave ranges). Because of the many sources in the environment (cell phone towers, WIFI, **SMART METERS**) the effects are additive. ... **Human cells do not recognise EM spectrum divisions. They react to electromagnetic fields across the spectrum.**”*

(Part of a declaration made by Martin Blank PhD, Columbia University New York. 28 Jan 2016)

Please note: Historic Win: Children’s Health Defense Wins Case Against the FCC on Safety Guidelines for 5G and Wireless

The US Court of Appeals for the D.C. Circuit on 13 August 2021 ruled that the Federal Communications Commission failed to provide a reasoned explanation for its determination that its current guidelines adequately protect against harmful effects of exposure to radiofrequency radiation.

The FCC is the equivalent of ARPANSA in Australia and AGNIR in Britain. Reports state that the FCC will finally have to recognise the immense suffering by millions of people who have been harmed by its unprecedented failure to protect public health.

The FCC was rebuked by a Federal Appeals Court Judge in DC for ***Ignoring Studies on Harm from Wireless Technology.***

They (FCC) ignored the studies and **have NOT updated their safety standards since 1996!**

The court also ruled that the FCC:

- ***failed to respond to recorded evidence that exposure to RF radiation at levels below the Commission’s current limits may cause negative health effects unrelated to cancer;***
- ***demonstrated a complete failure to respond to comments concerning environmental harm caused by RF radiation;***
- ***ignored numerous organisations, scientists and medical doctors who called on them to update limits;***
- ***did not provide evidence of properly examining evidence such as impacts of long-term wireless exposure, impacts on children, the testimony of persons injured by wireless radiation, impacts on the developing brain, impacts on the reproductive system and impacts on wildlife and the environment.***

ORSAA’s concern is that ARPANSA and ACMA are following the example of the FCC. While ARPANSA has adopted the updated ICNIRP guidelines, they are less protective and continue to ignore the same issues that the FCC has ignored, listed above.

Children Have Special Rights

Wireless radiation can have harmful effects on children’s development and health. This is the conclusion of a new scientific paper recently published by a group of scientific experts in medicine, epidemiology, toxicology, physics, biochemical engineering and public health who collectively have published more than 1000 papers. They point out that children are exposed to a large and growing number of wireless devices, none of which have been tested for safety on children.

“Children absorb proportionally more RFR than adults; about 2-fold greater in the paediatric cerebellum, ten-fold greater in the bone marrow of the skull and up to 30-fold greater in the hippocampus. Their eyes can absorb 2 to almost 5 fold higher doses than adults. Their brains and body tissues have a higher dielectric constant, a measurement of the ease with which electromagnetic fields can move through different media.

“Additionally, children have a faster rate of neuronal cell growth and the fatty myelin sheath is not fully formed until the mid-20s. Even very low levels of environmental exposure early in development can have lifelong implications for neurodevelopment. Stem cells are more active in children and have been found to be more sensitive to wireless frequencies than differentiated cells.

The authors also point out that international radiation limits do not provide adequate protection. “Federal Communications Commission and ICNIRP regulatory limits have long been criticised by experts and the Court because they do not address children’s unique vulnerability, biological and health effects of long-term exposure, nor the current ways that children are exposed to cell phone and wireless radiation.” They point to other countries and authorities that have developed lower exposure limits.

(Davis D, Birnbaum L, Ben-Ishai P, Taylor H, Sears M, Butler T, Scarato T. [Wireless technologies, non-ionizing electromagnetic fields and children: Identifying and reducing health risks](#). *Curr Probl Pediatr Adolesc Health Care*. 2023 Mar 16;101374. doi: 10.1016/j.cppeds.2023.101374. Epub ahead of print. PMID: 36935315)

NB: Children have special rights granted by the United Nations and ratified by Australia to live and grow up healthily.

In conclusion, I trust that, on behalf of my family and neighbours, I have expressed our concerns in a manner that deserves solid consideration.

Narelle Munro & concerned neighbours



29 May 2024