

ATTACHMENT - ORSAA to Minister for Communications Michelle Rowland MP

Re: White Zones for Health Impaired Australians

1. ORSAA

The Oceania Radiofrequency Scientific Advisory Association (ORSAA)¹ is a volunteer organisation collecting and disseminating the science on the biological and health effects of electromagnetic fields (EMFs). We have collated a database consisting of over 3,000 peer-reviewed scientific papers, two-thirds of which show the effects of EMFs on insects, animals, plants and humans.

2. Health effects of microwave radiation

As part of our role, we act as an advocate for disadvantaged Australians who are suffering from microwave sickness. Microwave sickness was identified in early research in the 1970s,² and nowadays it is often termed Electrohypersensitivity (EHS) or Electromagnetic Sensitivity (EMS). Currently, in Australia, there are a handful of environmentally trained medical doctors treating this condition. With many of these types of illnesses, the suffering precedes the medical diagnosis. It has been suggested by the communications industry that sufferers have developed this debilitating health condition as a result of a psychosomatic communicated disease, that is, a nocebo effect. This has resulted in marginalising these Australians. Objective evidence challenging this psychological explanation is routinely dismissed and ignored. However, the US Federal Communication Commission has admitted to EHS-like symptoms being caused by pulsations from smart meters³

Furthermore, there is a plethora of evidence that this is a real medical condition with biologically based causes, estimated to affect at least 3% of the population.⁴ The UK's Physicians' Health Initiative for Radiation and Environment (PHIRE) has a helpful webpage overviewing EHS.⁵

Several similar health concerns that are not well defined are placed into the health 'syndrome' category, such as chronic fatigue syndrome (CFS), Fibromyalgia, and Lyme disease. These syndromes are recognised in the mainstream. However, there is no recognition of the ill-effects from microwave radiation from sources such as mobile phone towers, cordless phones, mobile phones and Wi-Fi. People seeking treatment are refused recognition that their health condition may be related to microwave effects, even though biomarkers of ill-effects are now available to aid diagnosis.³ Treatments are also available, although prescription medications require a script. Doctors have been advised by ARPANSA that the symptoms are psychologically caused and without an organic basis. This creates a stigma which acts as a barrier to patients having their illness properly managed. These people suffer greatly. Some have moved to rural areas to reduce their wireless exposure, only to find a new

¹ ORSAA <https://www.orsaa.org>

² Early research into microwave sickness. <https://www.orsaa.org/research-papers.html>

³ *Proposed Changes in the Commission's Rule Regarding Human Exposure to Radiofrequency Electromagnetic Fields*, 34 FCC Rcd 11687, 11743-11745, ¶¶122- 124 & nn. 322-335 (2019).

⁴ [Why electrohypersensitivity and related symptoms are caused by non-ionizing man-made electromagnetic fields: An overview and medical assessment](https://pubmed.ncbi.nlm.nih.gov/35537497/). <https://pubmed.ncbi.nlm.nih.gov/35537497/>

⁵ Physicians' Health Initiative for Radiation and Environment (PHIRE). <https://phiremedical.org/electromagnetic-hypersensitivity-ehs/>

wireless tower constructed a short distance from their homes. Legal proceedings are very expensive and those with microwave sickness often have low socioeconomic status with limited funds when compared with the telecommunications companies.

ORSAA has also noted that several professional people are electrosensitive but are reluctant to speak publicly because they have seen others who have been discriminated against for declaring their EHS health status. Gro Harlem Brundtland, a former Director-General of the World Health Organization and a former Prime Minister of Norway was ridiculed for speaking out about her sensitivity to mobile phone signals.

3. The science of microwave radiation harm

Prolonged low-level exposures to microwave radiofrequencies (RF) at non-thermal levels, well below the ARPANSA standard, show clear bioeffects which, over long periods of cumulative exposure, lead to health effects in populations, and to detrimental impacts on animals and insects. There is strong evidence suggesting pulsed and highly modulated radiation does cause biological effects associated with disease pathways. These bioeffects at the cellular level produce oxidative stress, DNA damage, mitochondrial damage and macromolecular damage, as well as altered gene expression. These bioeffects have been linked to increased risks of developing cancer (not just brain tumours), neurodegeneration, cardiovascular disease, diabetes, and allergies, as well as other diseases currently on the rise in developed nations. We consider that the evidence points to plausible long-term health effects, including acting as a carcinogen as well as a tumour promoter. Risk management and the precautionary principle need to be applied when setting standards.

4. Industry conflict of interest

The current situation with the wireless communication standard is that the Australian Communications and Media Authority (ACMA) selects the health standard for the wireless communication industry. ACMA has selected the Australian Radiation Protection and Nuclear Safety Agency's (ARPANSA) wireless standard. On the surface, this seems reasonable, as ARPANSA is the premier radiation safety organisation in Australia. However, ACMA as the regulator has a conflict of interest in selecting the health standard as it derives income from the sale of the radiofrequency spectrum. ACMA is not a health authority and neither is ARPANSA, with no medical expertise on their staff in either case. The selection of the ARPANSA RF standard as the appropriate standard is misplaced. ARPANSA as a Commonwealth regulator has selected a standard that fits its purpose when it comes to regulating government departments and bodies (Defence, ANSTO, Health, CSIRO, etc.) which may use high-intensity exposures for their operations. However, the ARPANSA standard is unsuitable for the continuous 24/7 exposures that are occurring to members of the public at much lower levels of intensity. When setting public exposure standards, the regulator needs to take into account the following: (a) these exposures are uncontrolled; (b) exposures can be from many RF sources (an additive effect); (c) the health status of populations is not homogeneous. Moreover, the ARPANSA standard is not environmentally relevant for animals and insects which, for example, use magnetoreception for navigation.

5. Resulting from inadequate EMR standards

The ARPANSA Standard is based on guidelines from the International Commission on Non-Ionising Radiation Protection (ICNIRP), which is closely linked to industry. The co-founder of the ICNIRP group, Dr Michael Repacholi is an Australian scientist who has been shown to be

connected to industry, and who also established the WHO EMF group and adopted the ICNIRP guidelines. These guidelines only relate to bioeffects due to heating (called ‘thermal effects’) and ignore non-thermal effects as being relevant to health. In contrast, another agency in the WHO, the International Agency for Research on Cancer (IARC) classified wireless radiation as a **possible** carcinogen in 2011 (Group 2B). There have since been several long-term animal studies e.g., by the US National Institutes of Health, pointing to wireless radiation being a carcinogenic agent as well as a tumour promoter. However, the planned IARC review of this agent seems to have been delayed due to the Covid-19 pandemic.

6. Government inaction

The Parliamentary Inquiry into 5G in Australia⁶ that was announced in 2019 avoided the issue of health by not including health in its terms of reference. Despite this concerning oversight, over 80% of the submissions were about health concerns. ORSAA made two submissions.⁷ Before the inquiry had finished, the then Communications Minister (Mr Paul Fletcher) announced a \$9 million advertising campaign to extol the virtues of 5G.

Reliance on ARPANSA is misplaced as it is devoid of medical experts working in this area of environmental sensitivity. Moreover, in keeping with industry claims regarding EHS symptoms being psychosomatic, ARPANSA has engaged psychology-trained researchers (rather than biophysicists) for their information and communication machine on all matters pertaining to RF and health. The only voice raising public concerns was the previous Electro-Magnetic Energy Reference Group (EMERG) committee at ARPANSA. This committee was shut down as it became apparent the questions being asked by the three public representatives were too probing. A special committee within EMERG to look at EHS was disbanded. We consider that ARPANSA is now captured by industry and is far too biased toward industry needs when it comes to setting health standards.

Minister Rowland, we at ORSAA ask you to consider the following steps as a way forward:

1. Establish a regulatory body independent of ACMA, staffed by independent researchers and medical doctors with relevant credentials in environmental medicine, biophysics, and expertise in bioelectromagnetics. This group should be tasked with creating a set of safety standards for Australia based on the science pertinent to the 24/7 exposures currently applying to members of the public;
2. Give special consideration to EHS Australians who are seeking to find a safe and healthy environment in which to live in peace, by establishing “White Zones” in Australia (RF signal free regions). Currently these “white zones” exist near radio telescopes, as wireless signals interfere with radio signals from outer space. The siting of these radio telescopes tends to be in remote areas, where the EMF background is low.⁸ There is a need to establish “White Zones” in populated areas so that EHS sufferers are not digitally disadvantaged, because they can use hard-

⁶ https://www.aph.gov.au/Parliamentary_Business/Committees/House/Communications/5G

⁷ ORSAA submissions to 5G inquiry . <https://www.orsaa.org/5g-inquiry.html>

⁸ Refugees of the Modern World. <https://slate.com/technology/2013/04/green-bank-w-v-where-the-electrosensitive-can-escape-the-modern-world.html>

wired fibre connections. This has been done in Salzburg in Austria.⁹ There have also been policy changes in Cyprus¹⁰ and France¹¹ regarding exposure of children.

3. Assist people suffering the ill effects of microwave radiation by doing as Sweden has done, and recognising EMF-RF as a source of disability. This would include advising the Health Minister of the need for recognition of EHS with appropriate health care services as advised by the Austrian Medical Association¹²

We would be happy to meet with you in Canberra or over zoom to discuss this problem. We can also arrange for you to meet some of the affected people who can give you their stories first-hand.

Many thanks
Dr Julie McCredden
(ORSAA President)

Mr Victor Leach
(ORSAA Secretary)

⁹ [EUROPAEM EMF Guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses.https://www.degruyter.com/document/doi/10.1515/reveh-2016-0011/html?lang=en](https://www.degruyter.com/document/doi/10.1515/reveh-2016-0011/html?lang=en)
<https://www.degruyter.com/document/doi/10.1515/reveh-2016-0011/html?lang=en>

¹⁰ [CYPRUS – POLICY RECOMMENDATIONS ON CELL PHONES, WIRELESS RADIATION & HEALTH.https://ehtrust.org/cyprus-policy-recommendations-cell-phones-wireless-radiation-health/](https://ehtrust.org/cyprus-policy-recommendations-cell-phones-wireless-radiation-health/)
<https://ehtrust.org/cyprus-policy-recommendations-cell-phones-wireless-radiation-health/>

¹¹ [FRANCE: NEW NATIONAL LAW BANS WIFI IN NURSERY SCHOOL https://ehtrust.org/france-new-national-law-bans-wifi-nursery-school/](https://ehtrust.org/france-new-national-law-bans-wifi-nursery-school/)

¹² Austrian Medical Association. (2012). Guideline of the Austrian Medical Association for the diagnosis and treatment of EMF-related health problems and illnesses (EMF syndrome). Consensus paper of the Austrian Medical Association's EMF Working Group (AG-EMF). In *Meeting of environmental medicine officers of the Regional Medical Associations and the Austrian Medical Association*.