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Dear AEMC Team

Accelerating smart meter deployment rule change

Thank you for the opportunity to submit comment on the draft determination and rule for the Accelerating smart meter deployment rule change.

EMR Australia believes there are some significant flaws in the draft legislation.

Flaws to be addressed

- It assumes that ‘households will become smarter and more autonomous over time’. It is equally possible that the reverse will be the case as more people develop adverse reactions to radiofrequency (RF) radiation and take steps to remove it from their homes. (Many people are already doing this.)
- The AEMC claims the proposed changes will ‘create opportunities for greater data sharing’. However:
 - it cannot be assumed that all customers want to have their data shared with third parties, especially when as it will contain sensitive information, including information about a family’s equipment, activities and the timing of their movements in and out of the home;

- this accumulated data is vulnerable to hacking and there is every reason to expect that sensitive personal details will end up on the dark web, as has been the case with other examples of data hacking in recent years;
- people have the right to be consulted about how their personal data will be used.
- It mistakenly assumes that it is acceptable to install RF radiation-emitting meters on people's homes without their permission, despite the risks (see below).
- The AEMC claims 'A faster and more efficient replacement of legacy meters would enable consumers to access the benefits smart meters offer sooner.' It will also ensure that consumers are exposed to the RF radiation these devices emit sooner.

Problems related to radiofrequency (RF) radiation exposure

RF radiation has been repeatedly demonstrated to have harmful effects on the body and on other living creatures.

- The International Agency for Research on Cancer has classified radiofrequency radiation as a Class 2B carcinogen. ⁱ
- Since that time, more evidence of carcinogenicity has been found from both human and animal studies.
- The International Classification of Diseases (ICD-10), a global standard for diagnostic health information for health practitioners, lists exposure to radiofrequency radiation as a classifiable condition.
- Many eminent scientists and doctors have expressed concerns about the effects of RF radiation on people and the environment. For example:
 - An 'International Appeal', signed by 248 scientists, states that 'Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system,

learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.’ⁱⁱ

- According to the 2020 Consensus Statement of UK and International Medical and Scientific Experts on Health Effects of Radiofrequency Radiation (RFR), ‘The main risks associated with exposure to such (wireless) non-ionising radiation in the peer-reviewed scientific literature include: increased cancer risk, cellular stress, increase in harmful free radicals, genetic damage, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans.’ⁱⁱⁱ
- Courts in different countries have made determinations recognising that RF radiation could be a health risk, even at exposure levels that complied with standards.^{iv}
- Insurance companies have recognized the risks of RF radiation.^v
- Further, Australia’s radiation standard is based on flawed science and does not protect the public. International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF) has examined the relevant science and concluded that ‘Exposure limits for RF radiation are based on numerous assumptions; however, research studies published over the past 25 years show that most of those assumptions are not supported by scientific evidence.’^{vi}

Electromagnetic hypersensitivity

A requirement for people to have wireless smart meters on their home would greatly affect people with Electromagnetic Hypersensitivity (EHS). EHS is an allergic-type reaction to exposure to electromagnetic fields (EMFs), including RF radiation.

- It results in symptoms of mild to extreme discomfort and impairment, including:
 - headaches

- sleep problems
 - fatigue
 - tinnitus
 - concentration and memory problems
 - nausea and digestive problems
 - skin redness and burning
 - pain
 - behaviour problems
 - depression
 - anxiety
 - and irritability.
- These symptoms are consistent with biological changes that scientists have shown to occur from exposure. These include:
 - DNA damage
 - changes to neurotransmitters and hormones, including a reduction in melatonin
 - changes to cell behaviour, including increased levels of heat shock proteins and calcium ion efflux
 - breaches of the blood-brain-barrier
 - cell proliferation
 - and oxidative stress.
- In 28 years of working in this field, I have been contacted by many hundreds – at least – of people with EHS who are sensitive to low levels of exposure and they include:
 - people unable to work in environments with wireless equipment;
 - people unable to travel on public transport with WiFi;
 - people unable to teach, work as teachers' aids or learn in schools with WiFi;
 - people unable to enter public buildings – libraries, government offices, businesses, retail outlets, medical facilities, entertainment venues and so on – with WiFi;
 - people wrapping themselves in shielding material, shielding their homes, wearing shielded clothing etc in an effort to prevent symptoms from exposure;

- people moving homes to find less-exposed places for their families to live;
- people travelling Australia in search of low-radiation environments in which to feel comfortable.

These are not isolated scenarios. Many people are affected by exposure internationally and estimates of prevalence range from 1.5% to 13.3% of the population.^{vii}

Issues that need to be address in the legislation

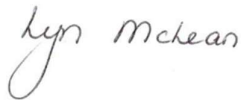
1. All customers must be able to choose non-radiating electricity meters [meters that don't emit radiofrequency radiation] and not be financially – or in any other way – penalised for the choice.
2. Customers must be given details about what 'data sharing' their electricity provider plans and the opportunity to give or withhold their approval.
3. Customers must be informed that wireless smart meters emit RF radiation that is a Class 2B carcinogen.
4. The legislation must explicitly acknowledge that:
 - RF radiation has been classified as a Class 2B carcinogen by the IARC.
 - Some people are more sensitive/vulnerable to RF radiation than others, including foetuses, babies, the sick, people with cancer, the immune compromised and the elderly.
5. The legislation must explicitly state which body - the Energy provider/the AEMC/other – is legally responsible for failing to protect customer data in the likely event it is hacked.
6. The legislation must require this body to provide appropriate compensation for this outcome.
7. The legislation must require all electricity providers and smart meter manufacturers to have adequate insurance covering them specifically for adverse effects related to the meters and/or the radiofrequency radiation they emit.

Questions that need to be answered by the AEMC

- What is the total cost of replacement of electricity meters as proposed for New South Wales, Queensland, Australian Capital Territory and South Australia?
- Can the expense be justified, given the aforementioned negative outcomes?
- Can the consumer be forced to accept a radiofrequency-radiation-emitting smart meter or have their data shared with third parties if they do not give their consent?

Thank you for your consideration of these comments and I look forward to your response to them.

Yours faithfully



Lyn McLean

Director

ⁱ IARC, ‘Non-ionizing Radiation, Part 2: Radiofrequency Electromagnetic Fields’, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans Volume 102, 201, <https://publications.iarc.fr/Book-And-Report-Series/Iarc-Monographs-On-The-Identification-Of-Carcinogenic-Hazards-To-Humans/Non-ionizing-Radiation-Part-2-Radiofrequency-Electromagnetic-Fields-2013>

ⁱⁱ International Appeal, <https://emfscientist.org/index.php/emf-scientist-appeal>

ⁱⁱⁱ ‘2020 Consensus Statement of UK and International Medical and Scientific Experts on Health Effects of Radiofrequency Radiation (RFR)’

^{iv} McLean, Lyn, ‘Wireless-wise Families’, Scribe 2017

^v Ibid

^{vi} International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF). Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G. *Environ Health* 21, 92 (2022). <https://doi.org/10.1186/s12940...>

^{vii} Lena Hedendahl, Michael Carlberg, Lennart Hardell, ‘Electromagnetic hypersensitivity--an increasing challenge to the medical profession’, *Rev Environ Health*, 2015;30(4):209-15, doi: 10.1515/reveh-2015-0012.