

AEMC Level 15 60 Castlereagh Street Sydney NSW 2000

Dear AEMC Team,

## Re: Accelerating smart meter deployment rule change.

I am writing to express my views on the draft determination and rule for accelerating smart meter deployment.

As a Radiation Health Physicist with some 50 years of experience in radiation protection, I have reviewed the literature and disagree entirely with the current ARPANSA safety standard based on the ICNIRP guidelines. This wireless radiation absorbed in the body produces cellular stress by overproducing reactive oxygen species (ROS), causes DNA damage, and is a carcinogenic agent<sup>1</sup>.

I oppose installing smart electricity meters that emit pulsed radiofrequency (RF) radiation. RF radiation is harmful because the current ARPANSA standard is based on ICNIRP guidelines, and these guidelines only protect against short-term heating. ICNIRP is an industry-backed organisation that is comprised of stakeholders<sup>2</sup>. As my electricity box is on the same wall as my bedroom, I will be exposed to this radiation for prolonged periods of time while sleeping. This will interfere with my melatonin production<sup>3</sup>, alter my neurotransmitters,<sup>4</sup> and affect my heart<sup>5</sup> while sleeping. I have measured my bedroom's ELF and RF exposure levels, which are currently acceptable. There are very few measurements made with smart meters installed on walls near bedrooms, but I can see they are unacceptably high, greater than 0.4 mW/m<sup>2</sup> <sup>6</sup>. My bed head is currently less than 0.01 mW/m<sup>2</sup>.

If you wish to attach a smart meter to my electricity box, you must move it to the other side of the house so it's on my garage wall and not my bedroom wall. The cost of doing this is considerable. I am sure that other homeowners are in the same situation as me. The building regulations do not have a clause regarding the placement of meter boxes on houses, which is a significant flaw and should be addressed when building new homes. My house was built in 1998. You need to factor the cost of meter box removal into your smart meter rollout. I previously refused the offer of a smart meter and have my old analogue meter on my electricity box. I had the option to reject a smart meter, and this new legislation will take

<sup>&</sup>lt;sup>1</sup> World Health Organization, radiofrequency radiation and health - a hard nut to crack (Review). https://www.spandidos-publications.com/10.3892/ijo.2017.4046

<sup>&</sup>lt;sup>2</sup> The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G, <a href="https://www.michele-rivasi.eu/wp-content/uploads/2020/06/ICNIRP-report-FINAL-JUNE-2020">https://www.michele-rivasi.eu/wp-content/uploads/2020/06/ICNIRP-report-FINAL-JUNE-2020</a> EN.pdf

<sup>&</sup>lt;sup>3</sup> Wi-Fi decreases melatonin protective effect and increases hippocampal neuronal damage in pentylenetetrazole induced model seizures in rats. <a href="https://pubmed.ncbi.nlm.nih.gov/31785933/">https://pubmed.ncbi.nlm.nih.gov/31785933/</a>

<sup>&</sup>lt;sup>4</sup> Hu C, Zuo H, Li Y. Effects of radiofrequency electromagnetic radiation on neurotransmitters in the brain. Frontiers in public health. 2021 Aug 17;9:691880. <a href="https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2021.691880/full">https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2021.691880/full</a>

<sup>&</sup>lt;sup>5</sup> Bandara, P. and Weller, S., 2017. Cardiovascular disease: time to identify emerging environmental risk factors. *European Journal of Preventive Cardiology*, 24(17), pp.1819-

<sup>1823.</sup>https://ec.europa.eu/health/scientific committees/scheer/docs/emf2022/Bandara 2917.pdf

<sup>&</sup>lt;sup>6</sup> https://www.aemc.gov.au/sites/default/files/content/77f2b94b-afbe-413f-80b5-fdb6bc8cb4d6/RuleChange-Submission-ERC0177-EMFacts-Consultancy-%28UPDATED%29-150319.pdf

away this option. The legislation must be changed to require electricity companies to roll out non-radiation-emitting smart meters. My daily exposure to wireless radiation from devices increases exponentially as this is an economic money spinner and is being rolled out under the pretense of "climate change". This standard does not cover the bioeffects from long-term exposure to non-thermal levels well below the ARPANSA limit. ICNIRP guidelines of 2002<sup>7</sup> clearly state that the effect on different people needs to be considered when setting standards. The paragraph states: "Different groups in a population may have differences in their ability to tolerate a particular NIR exposure. For example, children, the elderly, and some chronically ill people might have a lower tolerance for one or more forms of NIR exposure than the rest of the population. Under such circumstances, it may be useful or necessary to develop separate guideline levels for different groups within the general population, but it may be more effective to adjust the guidelines for the general population to include such groups. ..........."

Industry pressure has caused this clause to be deleted in the ICNIRP 2020 guideline revision. Industry has compromised the ICNIRP guidelines to the detriment of long-term public health.

I am also opposed to the rollout of radiation-emitting smart meters because they harm people with electromagnetic hypersensitivity (EHS). The latest European parliamentary workshop<sup>8</sup> showed that this is not a psychological condition.

I also do not consent to any electricity company collecting data about my electricity usage and sharing it with third parties. It is not clear if the legislation changes address this. Cyber security is a significant problem; criminals sharing personal data have compromised Optus and Medicare. The legislation must require electricity companies to compensate customers for any harm caused by their RF-radiation-emitting intelligent meters and to have insurance that covers them for damage caused by wireless smart meters.

The number of notices retailers send customers before a new meter deployment should not be reduced from two notices to one. The minimum number of business days required for notices should also not be reduced from what is currently needed.

Thank you for the opportunity to submit my comments, and I look forward to your response. Yours faithfully



Victor Leach

<sup>7</sup> International Commission on Non-Ionizing Radiation Protection (ICNIRP) GENERAL APPROACH TO PROTECTION AGAINST NON-IONIZING RADIATION PROTECTION. <a href="https://pubmed.ncbi.nlm.nih.gov/11906144/">https://pubmed.ncbi.nlm.nih.gov/11906144/</a>

<sup>&</sup>lt;sup>8</sup> VIDEO of EHS WORKSHOP at the EU Parliament held on April 13, 2023.

<a href="https://www.youtube.com/watch?embeds\_euri=https%3A%2F%2Fbetweenrockandhardplace.wordpress.com%2F&source\_ve\_path=Mjg2NjQsMTY0NTAz&feature=emb\_share&v=s1Kn7pGy3CI">https://www.youtube.com/watch?embeds\_euri=https%3A%2F%2Fbetweenrockandhardplace.wordpress.com%2F&source\_ve\_path=Mjg2NjQsMTY0NTAz&feature=emb\_share&v=s1Kn7pGy3CI</a>