



# STOP SMART METERS AUSTRALIA INC

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Premises Standards Review Team,  
Industry Growth Division,  
Department of Industry, Science, Energy and Resources,  
GPO Box 2013, CANBERRA ACT 2601  
*By electronic lodgment*

Dear Team Members

Thank you for the opportunity to comment on the second review of the *Disability (Access to Premises - Buildings) Standards 2010*.

Stop Smart Meters Australia (SSMA) is a volunteer-based advocacy group which includes in its purposes support and assistance to people who are opposed to smart meters and other radiofrequency emitters on the grounds of health. Unfortunately, modern day saturation of the environment and buildings with pulsed human-made radiation has led to an increasing number of people falling within the ambit of Australia's *Disability Discrimination Act 1992* due to the development of electrical hypersensitivity (EHS).

In particular, exposure to smart meter emissions has triggered EHS (also referred to as electromagnetic hypersensitivity, electromagnetic field sensitivity, electrosensitivity or microwave illness) in a portion of the population (Lamech 2014); in addition, other environmental sensitivities (Belpomme, Campagnac & Irigaray 2015, p. 265) and co-morbid illnesses often develop in tandem with EHS (Bray 2020, p. 4). People with electromagnetic field (EMF) sensitivities can react to electric and magnetic fields from building wiring, fluorescent lights, inverters (such as in air-conditioning units and as part of solar PV systems) and transformers in addition to radiofrequency radiation from smart meters, WiFi and wireless controls for lighting, heating, security and audio/visual technology systems in buildings.

According to a backgrounder published in 2005 from the World Health Organization 'While some individuals report mild symptoms and react by avoiding the fields as best they can, others are so severely affected that they cease work and change their entire lifestyle' (WHO 2005). The WHO stated that the symptoms most commonly experienced include 'dermatological symptoms (redness, tingling, and burning sensations) as well as

*neurasthenic and vegetative symptoms (fatigue, tiredness, concentration difficulties, dizziness, nausea, heart palpitations, and digestive disturbances)'.*

EHS can be an extremely serious disability which, in conjunction with the increasing prevalence of wireless technology in public buildings, has led to many individuals being denied reasonable access to buildings.

## **Percentage of the population with EHS growing**

Estimations of the prevalence of EHS within the community vary around the world. To-date, a survey has not been undertaken in Australia. A 2008 research article, based on a statistical Austrian cross-sample in regard to age, gender and Federal State, showed a prevalence rate of 3.5% (Schröttner & Leitgeb 2008, p. 1). UK-based *EM Radiation Research Trust* state that it is currently estimated that between 2.5% and 8% of the population could have this condition (EM Radiation Research Trust 2015). As reported by Dr Magda Havas, Professor Emerita at Trent University, who presented at a 2019 symposium on the impacts of wireless technology on health in Canada, the general scientific consensus is less than 10%. According to her, perhaps somewhere between 1 and 5% have severe electrical sensitivity (Havas 2019, p. 27).

This equates to a likelihood that 750,000 – and possibly over 1 million – people in Australia are living with severe sensitivity to EMF. The accelerated deployment of ‘smart’ technology and other wireless solutions in buildings in conjunction with personal uptake of wireless devices is likely to result in a sharp increase in the number of people experiencing sensitivities.

## **Buildings covered by the standards also need to cater for EHS individuals**

It is unconscionable that Australians are NOT being treated equally when it comes to being able to access public buildings. As it stands, there is no provision, whatsoever, for people with sensitivities to EMF. It is imperative that consideration is given within the Premises Standards to enable people living with EHS to also be able to make use of schools, universities, hospitals, aged care, libraries, auditoriums and other places such as short-term rental accommodation that fall within the Standards.

Please watch the testimony of a 14-year old child who has been deprived of access to public schools due to the proliferation of WiFi, in this hearing in Oregon, USA (starting just after the 8-minute mark in the video available at the following link, and running for less than two minutes): <https://ehtrust.org/first-in-the-nation-oregon-passes-state-bill-on-wireless-radiation-and-health-in-school/> Similar scenarios are playing out across Australia – simply for want of responsible policy-making and building standards.

In a research paper commissioned by the Canadian Human Rights Commission, titled '*Accommodation for Environmental Sensitivities: Legal Perspective*', which includes

electromagnetic field sensitivity in its definition of environmental sensitivities, the authors recommend that building codes 'proactively address issues related to accommodation of people with disabilities, especially in regard to disabilities that are difficult to address retrospectively, such as environmental sensitivities' (Wilkie & Baker 2007, p. 4).

Most EMF-impacted individuals are quite embarrassed by their condition: symptoms are often invisible, denying them the legitimacy accorded to overt disabilities; admitting to what triggers their condition can also limit job opportunities. The more severely affected are also often too ill and sensitised to make use of technology, such as computers, with which they might call attention to their plight.

Electrosensitivity UK (ES-UK), which is a charity formed with the aim of supporting people who are electro-sensitive and informing the public about the risks of electromagnetic radiation, reported in its Summer 2019 newsletter on a Westminster Hall parliamentary debate that discussed the problems faced by people with electrosensitivity. The MP for Gower stated, 'What shocked me was the number of people who have ES but are too afraid to talk publicly about their illness, because they are really wary of being humiliated and ostracised' (Electrosensitivity UK 2019).

## Measures to reduce electromagnetic fields in buildings

A number of simple steps can be taken to minimise electromagnetic fields in buildings. Such measures sit well with the *Disability (Access to Premises - Buildings) Standards*, as they are best implemented at the time that buildings are constructed, in order to avoid the unnecessary cost of retrofitting. Many of the modifications will also result in better overall outcomes, which will benefit the general public, as well as EHS sufferers.

Timothy Schoechle, PhD, a communications technology expert, contends in a report entitled *Re-Inventing Wires: The Future of Landlines and Networks* that 'Wireless access networking may be useful in some cases but is laden with risks, technically limiting, undependable, energy intensive, and relatively inefficient, and should therefore be considered to be an adjunct service' (Schoechle 2018, p. 116).

This sentiment is echoed in a paper entitled *Building Science and radiofrequency radiation: What makes smart and healthy buildings*. Frank Clegg, former President of Microsoft Canada (who has now dedicated himself to fighting for the rights of people harmed by unsafe levels of radiation from technology) et al. state that 'Environments with very low RFR [radiofrequency radiation] exposures can be achieved by choosing wired and fiber-optic cable connections, to buildings and throughout buildings. In fact, RFR is not only unnecessary for a "smart building"; wireless options will not match the bandwidth or reliability of fiber-optic or other cable options ("wired"). Wired options are faster and more secure, and require much less energy to operate, making them safer for human and environmental health' (Clegg et al. 2020, p. 4).

In some cases, modifications might only be made to part of a building, in order that low-EMF areas ('white zones') are created for EHS sufferers.

Electrical cabling measures to mitigate radiation, if not already incorporated (although existing measures are, ironically, focused on preventing electromagnetic interference with devices, rather than aimed at maintaining homeostasis in humans!), might range from bundling cabling, using shielded cabling and ensuring separation between cabling and places where people spend extended periods of time. A document that was published some years ago by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), entitled *Strategies to Reduce Magnetic Field Exposure (Mitigation)*, contains some common-sense suggestions (ARPANSA n.d.).

A paper entitled *Electromagnetic Fields in the Built Environment – Design for Minimal Radiation Exposure*, which also focuses on magnetic field exposure, notes that 'some heating systems, using electric cables encased in the concrete slab can give off high magnetic fields' and also makes the point that cable conduits supplying power to large equipment, such as elevators and roof top air conditioners, can create high nearby EMF levels; therefore as far as possible such cables should be placed in hallways and other areas where people are not working (Maisch, Podd & Rapley 2006, Summary).

Attention also needs to be given to lighting, as fluorescent lighting, as well as any other form of light which creates high frequency voltage transients, should be avoided.

It is also critical that health-care buildings make adequate provision for people who are EHS. Hospital accommodations for EHS patients in Sweden, according to a 2007 survey of hospitals in different Swedish regions, showed that measures included shielding, special consideration being given to the choice of wiring and location of electrical installations to reduce the overall radiation level everywhere in the hospital, ability to eliminate electricity in a room, provision of direct access to outside so patients aren't required to walk through the entire building and identification of rooms which already have low radiation levels (El Wellspring 2007).

Electricity meters of any kind should not be in close proximity (for example, on the other side of a wall) to where people spend time in order to avoid exposure to magnetic and electrical fields as well, in the case of smart meters, pulsed microwaves. Don Maisch, PhD, writes in *Tasmania's new electricity smart metering roll-out: Why opting out may be your wisest, and healthiest choice*, 'Considering the push for wireless smart meters (advanced or digital meters) a precautionary action would be to design homes and offices with the electricity meter located well away from living and work areas' (Maisch 2018, p. 8).

Wired telephone connections should be made available in all buildings in order that occupants aren't forced to rely on cordless or mobile phones.

Shielding from external EMF sources, such as communication towers, may be necessary; advice on how best to achieve this should be sought from a Building Biologist.

## **Urgent reform to *Disability (Access to Premises — Buildings) Standards 2010* is required in order to accommodate people living with EHS**

As noted by Melissa Chalmers, a former commercial airline pilot who was forced to give up the career she loved, electrosensitivity means that sufferers not only carry the burden of physical disability and often a loss of income, but also suffer social poverty because of the impossibility of accessing public spaces, plus medical poverty, because many EHS people are unable to go to hospital or care facilities due to the proliferation of wireless technology. EHS children are being denied access to schools; EHS elderly people are encountering barriers to living in aged care; even the simple task of shopping is not an option for some people (Chalmers 2019, pp. 134-135).

It is imperative that the Premises Standards seeks to remedy this situation. The ALARA (as low as reasonably achievable) principle needs to be applied to all radiation exposures in buildings.

Every five-year delay in addressing EMF-overload in public buildings means that there will be more poorly designed buildings in place – when so often, inexpensive tweaks in the early stages would make the difference between a building being accessible or not accessible to people living with EHS. Given the growing number of people who are becoming EHS, it is essential that the Premises Standards team tackles this issue and that building certifiers, developers and managers start turning their minds as to how they might reduce EMF in public buildings.

Yours sincerely



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