



*Living more safely with  
electromagnetic radiation*

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26 February 2015

Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Dear Sir/Madam

**National Electricity Amendment (Demand Management Incentive Scheme) Rule  
2015**

Thank you for the opportunity to comment on the above document.

The concept of demand management for electricity consumption is a desirable one, but neither the Australian Energy Market Commission's Consultation Paper nor the Total Environment Centre's Report 'Restoring Power: Cutting bills & carbon emissions with Demand Management'<sup>1</sup> has addressed an important issue: that demand management is most generally accomplished by the use of 'smart' electricity meters. 'Smart' metering systems operate using radiofrequency electromagnetic fields – which have a demonstrable effect on humans and the environment.

EMR Australia regards this as a serious deficiency and urges the Commission to investigate the implications of smart meterage systems before making any amendments to the National Electricity Rules.

Further comment is provided overleaf.

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<sup>1</sup> Dunstan, C., Downes, J. & Sharpe, S. (2013) *Restoring Power: Cutting bills & carbon emissions with Demand Management*. Institute for Sustainable Futures, University of Technology Sydney. Prepared for the Total Environment Centre.

## Consultation Document Issue 1

*Having regard to current and potential future market conditions, and in light of recent changes to the regulatory framework for distribution businesses, is there a gap in the current framework which may be discouraging distribution businesses from pursuing demand management projects as an efficient alternative to network investment?*

This issue presumes that technologies that enable demand management are desirable and safe. This has most certainly not been demonstrated and there is evidence to the contrary.

‘Smart’ meters emit radiofrequency electromagnetic fields which penetrate walls and expose those living within the buildings to which they are attached. As electricity meters are often attached to bedroom walls, it is not uncommon for people’s heads to be in close proximity, for long periods of time, to the meters’ antennas as they transmit radiofrequency signals.

It is important to consider that:

- 1.1 Radiofrequency electromagnetic fields have been classified by the International Agency for Research on Cancer as Class 2B carcinogens.<sup>2</sup>
- 1.2 Thousands of studies show that low levels of exposure to these fields is associated with adverse biological effects such as changes to neurotransmitters, hormones, cell behaviour, DNA breaks, cancer and brain tumours.<sup>3 4</sup>
- 1.3 Many people report adverse symptom that coincide with the activation of smart meter networks in their neighbourhoods – whether or not they were aware that the meters were active. These symptoms are consistent with those reported in the scientific literature from exposure to radiofrequency radiation.<sup>5</sup>
- 1.4 The Australian radiofrequency standard does not protect the public from harmful effects of radiation from ‘smart’ meters.<sup>6</sup> It has been designed to protect against instantaneous, acute, heating effects of radiation and not the continuous, low-level, long-term, biological effects that are of concern with ‘smart’ meters. ARPANSA does not claim that compliance with its standard ensures ‘safety’.

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<sup>2</sup> International Agency for Research on Cancer, Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 80, Non-Ionizing Radiation, Part 1: Static and Extremely Low-Frequency (ELF)

<sup>3</sup> McLean, Lyn, ‘The Force’, Melb, Scribe, 2011

<sup>4</sup> BioInitiative Report 2012, [www.bioinitiative.org](http://www.bioinitiative.org)

<sup>5</sup> Lamech, F, ‘Self-Reporting of Symptom Development From Exposure to Radiofrequency Fields of Wireless Smart Meters in Victoria, Australia: A Case Series’, *Altern Ther Health Med* 20(6):28-39, 2014.

<sup>6</sup> ARPANSA RP3 “Maximum exposure levels to radiofrequency fields – 3 kHz to 300 GHz” Radiation Protection Series 2002.

1.5 Radiofrequency electromagnetic fields have been shown to have adverse effects on animals – as demonstrated by the results of numerous animal studies.<sup>7</sup>

1.6 I draw to your attention the legal case: McDonald and Comcare, in which Dr McDonald was awarded compensation for injuries received in the workplace by exposure to extremely low levels of radiofrequency fields.<sup>8</sup>

Before implementing any changes to the National Electricity Rules that involve the use of ‘smart’ meters, it is essential to ensure that these meters are proven safe for humans and the environment – as opposed to simply complying with the ARPANSA standard.

### **Consultation Document Issue 2**

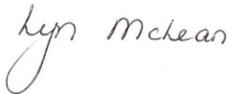
*In making its decision on the network regulation rule change request, the AEMC considered how much prescription the National Electricity Rules should include. In this context, we welcome the views of stakeholders on the appropriate level of prescription to include in the National Electricity Rules to enable the Australian Energy Regulator to develop and apply an effective DMEGCIS. In particular:*

It is entirely inappropriate to prescribe the installation of *any* electricity meterage networks that operate using radiofrequency electromagnetic fields.

In this regard, it is useful to consider the widespread opposition to the installation of smart meters in Victoria. These have included, as well as complaints about health problems, complaints about elevated electricity prices, concerns about the ability of utilities to remotely control electricity and the privacy and security of information about household activities. There is also the potential for ‘smart’ meters to cause fires – recently Canada’s Electrical Safety Authority (ESA) announced that approximately 5,400 smart meters are being replaced in Ontario because of fire risk concerns.<sup>9</sup>

I trust that you will take these comments into consideration and look forward to its response to them.

Yours faithfully



Lyn McLean  
Managing Director EMR Australia PL  
Publisher *EMR and Health*

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<sup>7</sup> BioInitiative Report 2012, [www.bioinitiative.org](http://www.bioinitiative.org)

<sup>8</sup> Administrative Appeals Tribunal, February 2013, <http://www.austlii.edu.au/au/cases/cth/aat/2013/105.html#sthash.z8p1029b.dpuf>

<sup>9</sup> thestar.com, 26.01.15.