

# Smart meters and radio frequency emissions



**Western Power is currently trialing more than 11,000 smart meters to assess their viability for wider use in the Western Australian market.**

Smart meters use radio waves to communicate remotely with Western Power, which produces radio frequency emissions.

## How safe are smart meters?

Our smart meters produce very low level emissions which fall well under the allowable limit for human exposure. They communicate using the same radio frequencies that have been used for many years by baby monitors, cordless phones and remote control garage doors.

On average, smart meters are only active for six minutes per day. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) states that the location, short time spent transmitting data and the low power transmitters in smart meters account for very low emissions.

Smart meters emit both a high and a low frequency form of an electric and magnetic field (EMF). Most people will be exposed to a variety of EMF sources every day through the use of household and business electrical services and appliances.

The types of EMF emitted by smart meters are:

- radio frequency (RF) emissions – also produced by radios, cordless telephones, wireless internet service and radio-controlled toys
- extremely low frequency (ELF) emissions – produced by all electrical equipment including toasters, kettles, hair dryers, computers, televisions and electrical wiring in your home and office

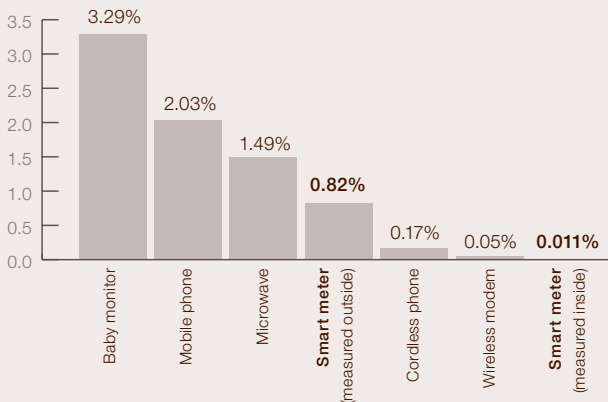
Based on international research, ARPANSA, along with the World Health Organisation, has concluded that on balance, scientific evidence does not indicate that the levels of ELF and RF emissions around the home or office pose a hazard to human health.



## Comparing radio frequency emissions

Below is a graph comparing the radio frequency emissions of various appliances with smart meters.

Percentage (%) of allowable exposure limit to RF emissions (ARPANSA general public limit)



(Source: AMI Meter Electromagnetic Field Survey Final Report, EMC Technologies, 2011)



## The future for smart meters

Smart meters are part of a wider initiative by Western Power called Smart Grid, which seeks to take a traditional 'poles and wires' electricity grid into the future by adding digital and communication technology.

The smart meter technology trials in selected metropolitan areas are also part of our commitment to the Australian Government's Perth Solar City program. A smaller smart meter trial has been carried out in Denmark and Walpole.

## Learn more about smart meters

For more information on smart meters or if you would like to find out more about our Smart Grid program, please visit our website or call our Customer Service Centre on 13 10 87.

## More information

ARPANSA website – [www.arpansa.gov.au/radiationprotection](http://www.arpansa.gov.au/radiationprotection)  
World Health Organization – [www.who.int/en](http://www.who.int/en)



## Contact information

**Faults & emergencies, power interruptions, estimated restoration times** (open 24 hours) **13 13 51**

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 This information is available in alternative formats on request.



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