

Dear Mr Barnes

Thank you for inviting HPA to comment in Ofgem's consultation on the accelerated roll-out of Smart metering. Please find a response from HPA below.

Yours Sincerely

[Redacted signature block]

General position

The Health Protection Agency (HPA) provides advice on standards of protection for exposure to non-ionising radiation, including the radio frequency electromagnetic fields (radio waves) associated with smart metering technologies. However, it is noted that this consultation is not directly relevant to HPA in that there are no specific questions on health effects. Nevertheless, it is useful at this stage to remind Ofgem that HPA expects exposures to the radio waves emitted from smart meters to comply with the exposure guidelines recommended by the International Commission on Non-ionizing Radiation (ICNIRP).

The ICNIRP restrictions on exposure are based on the interaction of radio waves with body tissues and are intended to prevent adverse effects due to excessive whole and partial body heating.

<http://www.icnirp.de/PubEMF.htm>

http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1254510609795

HPA is aware that there are public concern groups and concerned individuals who may oppose introduction of this technology on a widespread or individual basis, and this may well be exacerbated by Ofgem's accelerated roll-out plan. Ensuring compliance with the ICNIRP guidelines at an early stage of the technology will be an important part of ensuring safety and should help to allay concerns about electromagnetic fields.

Product Standards

HPA recommends that the manufacturers and developers work closely with the standards bodies to implement appropriate standards for comparing exposures from Smart metering devices with the ICNIRP restrictions.

The Radio and Telecommunications Terminal Equipment (RTTE) Directive requires that measures of a technical nature should be prescribed in order to ensure that "*temperatures, arcs or radiation which would cause a danger are not produced*". Thus, in fixing the CE mark to their products, manufacturers of radio devices provide an affirmation that this is the case.

<http://ec.europa.eu/enterprise/sectors/rtte/documents/>

Radiation is taken to include the non-ionising radiation that constitutes radio waves and technical standards bodies, such as CENELEC, have developed standards for manufacturers to use in assessing their products.

<http://www.cenelec.eu/Cenelec/Homepage.htm>

These standards are designed to ensure that product emissions do not cause exposures above the ICNIRP restriction values, as in the European Council Recommendation

(1999/519/EC). Compliance with these harmonised standards allows a presumption of conformity with the Directive's requirement.

http://ec.europa.eu/enterprise/sectors/electrical/files/lv/rec519_en.pdf

Sensitivity to EMFs

HPA also advises that it is aware that some people complain of sensitivity to electromagnetic radiation and have real, unpleasant and sometimes disabling symptoms. A report on the public health aspects of the condition was published by HPA in 2005.

http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1194947416613

The use of the term "electrical sensitivity" in the report does not imply acceptance of a causal relationship between symptoms and attributed exposure. In fact, scientific studies under double-blind conditions, including new work published since this report was written, have consistently failed to demonstrate a relationship between exposure and symptoms.

Stakeholder Advisory Group on ELF-EMFs (SAGE) First Interim Assessment

SAGE was set up by the Department of Health to *"To bring together the range of stakeholders to identify and explore the implications for a precautionary approach to ELF EMF (electric and magnetic fields) and make practical recommendations for precautionary measures"*. SAGE came about, in part in response to the National Radiological Protection Board (NRPB, now HPA) view published in its 2004 advice on protection the public from electromagnetic fields.

<http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

NRPB said:

"The government should consider the need for further precautionary measures in respect of exposure of people to EMFs. In doing so, it should note that the overall evidence for adverse effects of EMFs on health at levels of exposure normally experienced by the general public is weak. The least weak evidence is for the exposure of children to power frequency magnetic fields and childhood leukaemia."

During the SAGE process, the group considered whether public exposures to ELF-EMFs could be reduced by changing domestic electricity meters from the rotating disc type to electronic meters. SAGE did not discuss radio-frequency emissions from communications applications within electronic meters.

HPA reminds Ofgem that the SAGE First Interim Assessment (2007) recommended that:

"Use of rotating-disc electricity meters should be phased out. There is already a strong trend to this and 95% of meters currently being installed in new properties, and to meet re-certification requirement, are electronic. However, it is not clear how this can be made mandatory."

Alternatively, depending on how effectively a move to electronic meters can occur, DCLG (formerly ODPM) should modify the Building Regulations to specify that electricity meters and consumer units for new homes should not be located close to high-occupancy areas."

<http://www.sagedialogue.org.uk/SAGE%20first%20interim%20assessment%20-%20Main%20Report.pdf>

Summary

HPA wishes to affirm its readiness to work with Ofgem as it develops responses to requests for information and challenges about health effects, including concerns about electrical sensitivity. All relevant information about exposure levels should be produced at an early stage and made available to those with concerns about EMF exposures.

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