

Mark Prisk MP

Minister of State for Business and
Enterprise

John Hayes MP
House of Commons
London
SW1A 0AA

Our ref: 252257

Your ref:

20 July 2011

Dear John

I write in reply to your letter of the 24 May to Ed Vaizey, in which you enclose an email from your constituent Mr P of addressing issues concerning Power Line Communication Technology (PLT) and European Harmonised Standard EN 55022. I am replying as the issues fall to me as Minister of State for Business & Enterprise.

Unfortunately, the strong views relating to the use of PLT expressed by your constituent are well known to both The Office of Communications (Ofcom) and me; Ofcom having the responsibility for enforcement of the Electromagnetic Compatibility Regulations 2006 for radio spectrum issues. However, the views held by Mr P are equally strongly opposed by industry and those promoting Power Line Technology equipment. As assistance to all interested parties Ofcom have prepared an internet information page which lays out the perspective from the Regulator and provides access to data, reports and notices that have from various sources and which have been used to form the basis of the Ofcom position. These can be found at:

<http://stakeholders.ofcom.org.uk/enforcement/spectrum-enforcement/plt/>

It is unfortunate that your constituent, along with certain others, fail to understand the compromises that have had to be drawn with regard to technical standards, such as EN55022, and how such standards fit into the legal framework.

In particular your constituent has quoted a paragraph from a reply given by Mr Verheugen on behalf of the European Commission on 12 June 2009, I have enclosed a copy of the full reply and I draw your attention to the first paragraph preceding that quoted by your constituent, which notes "that power

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line communications are a promising technology for a wide range of important applications". I would also refer you to the third and forth paragraph that immediately follow that quoted by your constituent, which make clear that the latest edition to EN55022 is introducing very stringent limits and notes the lack of interference cases caused by PLT. The forth paragraph makes clear that the situation needs to be addressed to provide an appropriate solution to the loss of the 1998 version of EN55022; the two solutions suggested being to extend the life of the 1998 version or to modify the limits in the 2006 version, but the view is clear the limits set by EN55022 of 2006 are not appropriate for PLT.

I have enclosed a further answer given by Mr Verheugen on behalf of the European Commission on 16 September 2009 which makes clear that the Commission Recommendation (2005/292/EC) of 2005 should be used by Member States enforcement authorities and notes that no standard is currently available for PLT.

Your constituent has made reference to the Electromagnetic Compatibility Directive (EMC Directive), this sets objectives, and it does not require any standard to be complied with, though following an appropriate standard does provide a presumption of conformity with the requirements of the Directive. Therefore the question is whether or not the objective of the Directive has been met or not, the question of compliance with EN55022 is irrelevant.

The issue of PLT equipment and complaints of possible interference to the radio spectrum should be placed in context. Ofcom estimate over 1.8 million pairs of PLT equipment has been placed on the UK market. Since July 2008 Ofcom has received around 280 complaints, all from hobby radio users claiming problems with shortwave reception (about 70% are licensed radio amateurs, others include CB and shortwave enthusiasts). Almost all cases involve equipment supplied by BT to their BT Vision customers. BT has undertaken to resolve these complaints, 225 have been investigated and all but one solved. Complaints of interference have shown a significant decline of about two thirds over the past twelve months (compared with the previous 12 months). This is against an increased take-up of the technology. Mr Verheugen's reply of 16 September also notes the large quantity of PLT equipment placed on the market and the small number of complaints.

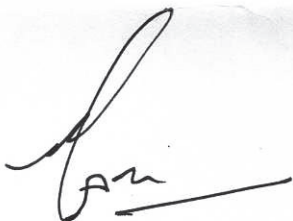
Taking into consideration the drive from the RSGB and others to urge stakeholders to raise complaints and that hobby radio users appear to be the only stakeholder group affected, lends supports to the conclusion that these devices can not be generally considered as non-compliant with the requirements of the legislation. For Ofcom to take action they would need to

prove, beyond reasonable doubt, that a particular product does not meet the essential requirements of the EMC Regulations. Currently Ofcom take into consideration advice in a European Commission Recommendation of 2005 (see attachment reference 2005/292/EC) and consider reports of interference as they arise on a case-by-case basis, facilitating a resolution where possible.

Without a standard the Ofcom assessment becomes very difficult as it has to be based on the likelihood for there to be interference. For a professional broadcaster, with a specifically set-up transmitter, covering a specific area, the signal strength and thus noise background level can be specified with some confidence. However, this is not the case with an amateur arrangement where the objective is often to detect very weak signals from remote locations and it is therefore these users which are more likely to be subject to some interference under certain circumstances, particularly where a PLT product is used in close proximity to the receiver.

Ofcom can only react on the basis of evidence; to exclude a specific product from the market they would need to be able to prove beyond reasonable doubt that the product does not meet the essential requirements and currently there is no such evidence against any product. Consequently there is no justification for regulatory action.

I trust this is helpful.

A handwritten signature in black ink, appearing to read 'Mark Prisk', with a long horizontal stroke extending to the right.

MARK PRISK MP



Parliamentary questions

2 April 2009

E-2260/09

WRITTEN QUESTION by Alejo Vidal-Quadras (PPE-DE) , Fiona Hall (ALDE) , Satu Hassi (Verts/ALE) , Pilar del Castillo Vera (PPE-DE) and Erika Mann (PSE) to the Commission

Subject: Standard EN55022 relating to smart grids deployment

Answer(s)

Recent amendments to European standard EN55022 throw into jeopardy the future of powerline communications (PLC) technologies by imposing artificially low electromagnetic emissions limits that will make it impossible to place PLC equipment on the EU market from October 2009. PLC technologies enable important applications, including cost-effective smart grid technologies, through their capacity to ensure efficient management of the energy grid, integrate renewable energy sources, and enable sustainable consumer behaviour. Smart grid technology has been endorsed in the EU's Strategic Energy Technology Plan and has a key role to play in helping Member States meet the European Union's 20-20-20 climate change commitments.

What actions is the Commission taking to ensure that the changes to the standard do not disrupt the deployment of powerline communications technologies from October 2009?

Can the Commission confirm that it intends to scrutinise the decision-making process within the relevant CENELEC working group to establish if the decision-making process complies with the requirements for transparency laid down in Directive 98/34/EC⁽¹⁾?

Does the Commission agree that it would be appropriate to maintain the existing EN55022:1998 standard beyond the expiry date of October 2009 to allow time for all relevant stakeholders to jointly review the impact of the changes introduced in 2006, and for the relevant CENELEC working group, specifically established for that purpose, to run its course?

Does the Commission agree that allowing the EN55022:2006 standard to be the only way of demonstrating product conformity from October 2009 will disproportionately affect PLC technologies at a time when Europe needs all relevant technologies to remain available if the EU is to achieve its climate change commitments, and be competitive in the multibillion Euro smart grid industry?

(1) OJ L 204, 21.7.1998, p. 37.

OJ C 189, 13/07/2010



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Parliamentary questions

29 July 2009

E-3813/09

WRITTEN QUESTION by Graham Watson (ALDE) to the Commission

► Subject: Power line telecommunications

Answer(s)

High-speed Internet communication is a cornerstone of the Lisbon Strategy and its development is rightly seen as essential in aiding the recovery of Europe's economy. There has been considerable success in liberalising the many stages involved in providing broadband access, speeding up progress and making the technology widely available to homes and offices around Europe. However, progress has been slower in the 'last mile' of broadband delivery.

Power Line Telecommunications (PLT) is a technology with the potential to promote greater competition in this area. However, there is much disagreement amongst regulators and industry experts about its impact on electromagnetic compatibility (EMC) and aeronautical, maritime and broadcast signals. What is the Commission's view on PLT interference? Does the Commission believe that PLT technology conforms with existing agreements on EMC?

There have been attempts to create a European standard for the EMC of Telecommunications Networks but confusion still appears to reign, preventing progress and advancement in broadband delivery. What steps is the Commission taking to create a common standard that protects EMC whilst also supporting affordable access to high-speed Internet?

OJ C 10 E, 14/01/2011

OJ C 10 E, 14/01/2011

Last updated: 4 August 2009

Legal notice



Parliamentary questions

16 September 2009

E-3813/2009

Answer given by Mr Verheugen on behalf of the Commission

Power line communication technology (PLT) contributes to the development of the Information Society and the Knowledge-based Economy. However, for more than 10 years PLT has been the subject of a controversial discussion in the EU. This is due to the fact that this technology uses installed electrical cables that are not designed for high speed data. This can cause radio interference that users of shortwave frequencies consider unacceptable. Those interference are unstable and hardly predictable since all electrical networks are different from each other. It is important to understand that it is the networks which radiate radio waves, and not the PLT devices themselves.

PLT are subject to Directive 2004/108/EC (Electro Magnetic Compatibility (EMC))⁽¹⁾ relating to electromagnetic compatibility. Already in 2001 the Commission mandated the European Standardisation Organisations to develop PLT harmonised standards under this directive. As of today, appropriate standards, whether at device level or network level, are not yet really available. The only one proposed is considered by many to be inadequate and gives rise to incompatible interpretations. Standardisation is carried out by independent institutions — European or global organisations. However, in 2008 substantial progress was made by standardisation bodies and the Commission is now confident that adequate standards will emerge within the next two years and will integrate the appropriate mitigation techniques recently developed by PLT manufacturers.

In 2005 the Commission issued a Recommendation (2005/292/EC)⁽²⁾ to Member States to ensure transparent, proportionate and non-discriminatory conditions for the deployment of powerline communications systems, and removal of any inappropriate regulatory barriers. Moreover, the recommendation recommends Member States to be vigilant and report on potential difficulties with this technology. Since then, according to the information the Commission possesses, there have been relatively few problems. There are now approximately 10 million PLT devices in use throughout the EU. Most problems seem to occur in the United Kingdom (UK). Out of 206 established interference cases in the EU in 2007–08, 184 were based on radio amateur complaints, 140 by UK radio amateurs. Radio amateurs often try to capture radio signals from the other side of the world for which they need a perfect radio wave silence. To the knowledge of the Commission, the UK authorities are aware of the issue and are working on solutions, where necessary by prohibiting the device owner to continue using the installation in question. In the past three years, only one PLT model was banned from sales by a Member State. The Commission is not aware of problems in the aeronautical or maritime area. By and large, PLT systems are already conformant to the existing EMC framework and agreements, and the Commission expects that in 2010/2011 the new mitigation techniques incorporated in new EMC standards will eliminate completely the possibility of borderline cases.

For the time being PLT has a rather restricted market for in-house/ in-office high speed connection. A new application of PLT is emerging through the development of Smart Grids associated with renewable sources of energy and the EU's long-term objectives for Carbon Dioxide reduction. The future grids must 'host' efficiently all new power producers (individual solar installations, wind mills, etc.) and therefore need sophisticated and automated communication capabilities. The cheapest option for the communication functions of those grids is to reuse their cables and install PLT. Those networks are still at the designer stage.

The Commission will continue to closely monitor the use of PLT in the EU.

(1) Directive 2004/108/EC of Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC. Text with EEA relevance, OJ L 390, 31.12.2004.

(2) Commission Recommendation of 6 April 2005 on broadband electronic communications through powerlines (Text with EEA relevance), OJ L 93, 12.4.2005.

COMMISSION RECOMMENDATION

of 6 April 2005

on broadband electronic communications through powerlines

(Text with EEA relevance)

(2005/292/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (the framework Directive)⁽¹⁾, and in particular Article 19(1) thereof,

Whereas:

- (1) The present Recommendation seeks to ensure transparent, proportionate and non-discriminatory conditions for the deployment of powerline communications systems, and removal of any inappropriate regulatory barriers. Powerline communications systems include both equipment and networks.
- (2) The EU regulatory framework for electronic communications aims to create conditions for the competitive provision of electronic communications networks and services and ensure that users obtain the maximum benefit in terms of choice, price and quality. National authorities have an objective to promote competition in the provision of electronic communications networks, which include powerline communications networks. They should thus remove any unjustified regulatory obstacles, in particular on utility companies, to deploy and operate electronic communications networks over their powerlines.
- (3) Deployment of powerline communication systems is subject only to a general authorisation pursuant to Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (the authorisation Directive)⁽²⁾. This may include, where appropriate, obligations provided for in Directive 89/336/EEC of the Council of 3 May 1989 on the

approximation of laws of the Member States relating to electromagnetic compatibility (the EMC Directive)⁽³⁾, Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (the terminal Directive)⁽⁴⁾, the Framework Directive, Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communication networks and services (the Universal Service Directive)⁽⁵⁾ such as for emergency communications and the integrity of the network. With a view to avoiding discrimination, cross-subsidisation and distortion of competition, there may also be obligations on certain undertakings in accordance with Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC⁽⁶⁾, to keep separate consolidated accounts for the non-electricity activities, such as powerline communications.

- (4) Powerline communication networks are cable networks and as such they are guided media. They do not use radio frequencies for transmission within the meaning of Annex B of the Authorisation Directive or Decision 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community⁽⁷⁾.
- (5) Powerline communications systems fall within the scope of the EMC Directive. The term 'apparatus' as defined in the EMC Directive means all electrical and electronic appliances together with equipment and installations containing electrical and/or electronic components. Powerline communications systems are considered as fixed installations and can only be put into service if they comply with the Directive.

⁽¹⁾ OJ L 108, 24.4.2002, p. 33.

⁽²⁾ OJ L 108, 24.4.2002, p. 21.

⁽³⁾ OJ L 139, 23.5.1989, p. 19. Directive as last amended by Directive 93/68/EEC (OJ L 220, 30.8.1993, p. 1).

⁽⁴⁾ OJ L 91, 7.4.1999, p. 10. Directive as amended by Regulation (EC) No 1882/2003 (OJ L 284, 31.10.2003, p. 1).

⁽⁵⁾ OJ L 108, 24.4.2002, p. 51.

⁽⁶⁾ OJ L 176, 15.7.2003, p. 37. Directive as amended by Council Directive 2004/85/EC (OJ L 236, 7.7.2004, p. 10).

⁽⁷⁾ OJ L 108, 24.4.2002, p. 1.

- (6) In powerline communications systems, the cabling involved may already be in service for other uses, and networks may be subject to constant alteration. These characteristics, together with the specific nature of unwanted radiated emissions along wireline systems, means that is impractical to carry out measurements on a complete system, and an ex-post model for interference management of wireline systems with radio systems is appropriate, in accordance with the EMC Directive. Therefore, a network made up of equipment compliant with the EMC Directive and used for its intended purpose, which is installed and operated according to good engineering practices designed to meet the essential requirements of the EMC Directive, should be considered compliant with the requirements of the EMC Directive. The documented good engineering practices should include targeted in-situ measurements, demonstrating that the objectives of the EMC Directive are met in respect of unwanted radiated emissions, especially in situations where interference is more likely to occur.
- (7) This approach shall not prevent Member States from taking special measures for safety reasons concerning the putting into service or use of equipment to protect public telecommunication networks or receiving or transmitting stations used for safety purposes in well-defined spectrum situations, in accordance with Article 6 of the EMC Directive.
- (8) If the interference caused by a powerline communications system can not be resolved by the parties concerned, the competent authorities should request evidence of compliance of the system concerned and, where appropriate, initiate a further assessment. That assessment should include a verification of compliance of the system under the EMC Directive. If non-compliance is identified, the competent authorities should impose proportionate, non-discriminatory and transparent enforcement measures to bring the system into compliance.
- (9) If a system is deemed compliant but is nevertheless creating harmful interference, the competent authorities of the Member States should take special measures according to Article 6 of the EMC Directive, with a view to resolving such interference. Measures taken should be proportionate, non-discriminatory and transparent. In examining the proportionality of measures, Member States should take into account economic and social aspects of the services involved. Member States may also take into account the technical capability of modern powerline communications equipment to allow for a timely resolution of interference problems by reducing emissions at the specific interfering frequencies and places by so-called 'notching'.
- (10) In order to achieve a consistent application of either enforcement measures or of special measures under Article 6 of the EMC Directive, the competent authorities should exchange information between themselves and the Commission.
- (11) This approach, combined with regular and detailed interference reporting, will allow for further test results and experiences to be gathered on the roll-out of powerline communications networks, in particular in view of the protection of the use of the radio spectrum. The frequency of reporting should be semi annually initially, but may be varied depending on the results obtained.
- (12) In 2001 the Commission called upon the European Standardisation Organisations (ESOs) to draft harmonised European standards for wireline networks to include digital subscriber line (DSL), coaxial cable, Ethernet and powerline communications networks⁽¹⁾. However, the work of the ESOs has not yet been completed. In order to facilitate the development of a harmonised European standard for wireline networks and apparatus, national authorities should monitor developments in close cooperation with market players.
- (13) The Communications Committee has been consulted in accordance with the procedure referred to in Article 22(2) of the Framework Directive,
- HEREBY RECOMMENDS:
1. Member States should apply the following conditions and principles to the provision of publicly available broadband powerline communications systems.
 2. Without prejudice to the provisions of points 3 to 5, Member States should remove any unjustified regulatory obstacles, in particular from utility companies, on the deployment of broadband powerline communications systems and the provision of electronic communications services over such systems.
- ⁽¹⁾ Standardisation mandate addressed to CEN, CENELEC and ETSI concerning electromagnetic compatibility (EMC) on EMC harmonised standards for telecommunications networks, Mandate M/313, 7 August 2001.

3. Until standards to be used for gaining presumption of conformity for powerline communications systems have been harmonised under Directive 89/336/EEC, Member States should consider as compliant with that Directive a powerline communications system which is:

- made up of equipment compliant with the Directive and used for its intended purpose,
- installed and operated according to good engineering practices designed to meet the essential requirements of the Directive.

The documentation on good engineering practices should be held at the disposal of the relevant national authorities for inspection purposes as long as the system is in operation.

4. Where it is found that a powerline communications system is causing harmful interference that can not be resolved by the parties concerned, the competent authorities of the Member State should request evidence of compliance of the system and, where appropriate, initiate an assessment.

5. If the assessment leads to an identification of non-compliance of the powerline communications system, the competent authorities should impose proportionate, non-discriminatory and transparent enforcement measures to ensure compliance.

6. If there is compliance of the powerline communications system but nevertheless the interference remains, the competent authorities of the Member State should consider taking special measures in accordance with Article 6 of the Directive 89/336/EEC in a proportionate, non-discriminatory and transparent manner.

7. Member States should report to the Communications Committee on a regular basis on the deployment and operations of powerline communications systems in their territory. Such reports should include any relevant data about disturbance levels (including measurement data, related injected signal levels and other data useful for the drafting of a harmonised European standard), interference problems and any enforcement measures related to powerline communications systems. The first such report is due on 31 December 2005.

8. This Recommendation is addressed to the Member States.

Done at Brussels, 6 April 2005

For the Commission

Viviane REDING

Member of the Commission