viegand maagøe
energy people

Viegand Maagøe A/S
Nr. Farimagsgade 37
1364 Copenhagen K
Denmark

Tlf.: +45 33 34 90 00
info@viegandmaagoe.dk
CVR: 29688834

Project:	Review of the standby regulation 1275/2008
Subject:	Minutes of Stakeholder Meeting 21 October 2015
Date:	21 October 2015
To:	Participants of the meeting
From:	Study Team Viegand Maagøe

The minutes contain the main topics and conclusions arisen from the discussions on the topics of assessment in this review study, presented at the Stakeholder Meeting. The presentation slides with additional comments added after the meeting are also available at the project's website for reference.

Meeting participants

- Ulrike Nuscheler – Policy Officer at DG ENER, European Commission
- Larisa Maya-Drysdale - study team (Viegand Maagøe)
- Jan Viegand - study team (Viegand Maagøe)
- Baijia Huang - study team (Viegand Maagøe)
- João Marinho - Hitachi
- Nuno Santos - Hewlett-Packard
- Ove Persson - Eriksson AB
- Charles Tollit - EPTA
- Boris Manev - EPSON
- Vanessa Chesnot - EPEE
- Chloé Fayole - ECOS
- Sylvie Feindt - Digital Europe
- Els Baert - Daikin
- Takahiro Oki - Dakin
- Blair Schodowski - Cisco
- Klaus Verschuere - Cisco
- Félix Mailleux - CECED
- Jens Gröger - Öko-Institut
- Angeliki Malizou - ANEC/BEUC
- Paolo Tosoratti - DG ENER, European Commission (part of the meeting)
- Daniel Hinchliffe - Germany
- Edward Michael Rimmer - UK
- Bram Soenen - Belgium
- Kieren Mayers - Sony
- Chris Minnoy - Sony
- Sandeep Rana - Samsung
- Robert Turner - Pace
- Tani Hidekazu - Mitsubishi
- Mihai Scumpieru - Mitsubishi
- Juan Perez-Diez - Liberty Global

Agenda

1. Presentation of the study team
2. Short overview of Regulation 1275/2008 (incl. four amendments)
3. Overview of the review study
4. Focus aspects of review study (SCOPE):
    a. Products equipped with electric motor (operated by remote control)
    b. Products with low voltage external power supplies
    c. Products classified as professional equipment
    d. Other products on standby/off mode scope
5. Focus aspects of the review study (REQUIREMENTS):
    a. Level of ambition for standby/off operating modes
    b. Appropriateness and level of ambition for networked standby requirements from the 3rd stage implementation (2019) for non HiNA-equipment
6. Other areas of review
    a. Ambiguous definitions
    b. Products covered under other Vertical Regulations and Voluntary Agreements
    c. Other aspects
7. Next steps

Aim of the meeting

The aim of the stakeholders meeting was to present the topics of the assessment, the study team's findings so far and to capture the input of the stakeholders participating in the meeting in order to continue the review study by the study team. The meeting focused on presenting a brief overview of the consolidated Regulation, the review study and on establishing an interactive dialogue with the participants on the topics of assessment.

1. Presentation of the study team

Welcome was given and agenda of the day was presented.

The study team was presented:

- Project manager: Larisa
- Technical expert: Jan
- Technical and data expert: Baijia
- Support data collection and analysis: Catriona
- Reporting: All
- Contract manager: VHK

The core team consists of Larisa, Jan and Baijia throughout the study. Larisa is the main contact person.

2. Short overview of the Regulation 1275/2008 (incl. amendments)

Background of Regulation 1275/2008 and amendments were presented together with the requirements.

3. Overview of the Review study

Project aims and scope of the review study were presented as well as the timeline of the study.

4. General remarks

- ECOS mentioned it was difficult to prepare for the meeting without a draft report.
- Digital Europe commented that the timeline may be too short for the scope of this study.
- Germany mentioned that the timing is very tight for the study team, so maybe the Consultation Forum could be postponed for ensuring a solid analysis is carried out rather than rushing to presenting something. Germany raised the question to other stakeholders on their opinion on this. Hewlett-Packard stated that it could be a possibility.

5. Focus aspects of review study (SCOPE)

a. Products equipped with electric motor (operated by remote control)

- The study team presented the findings for products equipped with electric motors (operated by remote control) as well as some examples on the energy consumption during standby/off modes.
- Comments were given about the timeline and scope of this study by Digital Europe, who commented that the study period might be too short for looking into extending the review scope to a large range of products. The study team stated it is not a scope extension, but part of the points covered by the Article 7 of the regulation about revision. Article 7 covers mainly standby and off, but due to the technological development there are also products with electric motors with networked standby, which allows to control them via a smartphone.
- Cisco confirmed that normally products equipped with electric motors have traditional standby, but once the remote controls (not delivered with the product) via networks are involved then it will be networked standby.
- The Mitsubishi representative stated that he briefly looked at Linak website and mentioned that windows are special cases, because they have actuators which are ensuring self-locking functionality when they are not moving. Therefore they are not in standby mode because this mode cannot have additional functionality according to the definition. The study team mentioned that the example brought by Mitsubishi is an example of a difficult identification of the standby mode, but if windows are closed, it would probably be considered as standby or off. Adjustable desk and beds are examples of products where standby/off modes could be easier to identify. A better definition of what standby is for these products will be investigated.
- Öko-Institut mentioned that windows and building automation may also be covered by EPBD (Energy Performance of Buildings Directive) already, so it may be best to address there.

- Belgium pointed out that the consumption of the motor should also be assessed. Furthermore, electronic access systems using access cards for opening doors, payment terminals, intercom systems and door-bells may also be assessed. The study team stated that doorbells and intercoms are not within this part of the review clause. Payment systems and access card systems do not fit the definition of electrical and electronic household and office equipment. For motors, the study team is looking at the consumption of the whole system including motors, as there is one connection to the mains. Furthermore, they explained that in standby the motor is not carrying out any function as it is waiting for commands.
- The Policy Officer mentioned that the review should stick to the original scope, i.e. domestic and office equipment and assess professional equipment only within this frame. Safety, monitoring systems and other new areas should probably not be in scope. Öko-Institut agreed that doors and windows are part of the building components and the focus should be on electric furniture that consumes electricity.

b. Exemption of products with low voltage external power supplies

- The study team presented issues related to the exemption of products with low voltage external power supplies and potential solutions. 4 solutions were presented:
    - 1. Low voltage EPS is defined as having voltage < 6 V and current between 550mA and 2A i.e. including an upper limit for the current
    - 2. Clarify low voltage EPS as used with products only connected to the mains for battery charging purposes, excluding EPS used with products that are intended to be continuously connected to mains
    - 3. Clarify low voltage EPS as being used with mobile devices and products that are designed to be operated off a battery
    - 4. Remove the exemption for products with low voltage EPS
- Hewlett-Packard stated that solution 4 (removal of exemption) would not solve any problem, which was the original reason for the exemption. Furthermore, the Guidelines for the Regulation already address products operated by rechargeable battery. These products should not be in the Regulation and cannot see how Solution 3 would bring problems with vacuum cleaners.
- The Policy Officer stated the background for exemption was not due to a problem to solve, it was rather to limit administrative burden for the manufacturers of mobile phones which were deemed to be energy efficient. If the group of products being exempted is getting bigger, then they need to be addressed.
- The study team mentioned the regulation scope will not be widened by Solution 4, because there is currently no exemption of products operated by batteries. Furthermore, this exemption creates loopholes as there are more products, apart from mobile phones, which are exempted because they are delivered with a low voltage EPS.
- Hewlett-Packard stated it is difficult to measure standby consumption for battery operated products if they are not connected to the mains. The study team replied that the consumption is measured when the battery is fully charged and no charging takes place[1].

[1] IEC 62301 measurement standard states “off mode and standby mode shall be measured after precautions have been taken to ensure that the battery is not being charged during the test, e.g. by removing the battery where this is possible, or ensuring that the battery is kept fully charged if the battery is not removable”.

- Sony mentioned that the automatic power down, deactivation of wireless connection and power management function for networked equipment would also apply to mobile phones, and it could be problematic. The study team mentioned that mobile phone manufacturers can invoke the Regulation clause of 'inappropriate for intended use' with technical justification if a requirement is inappropriate for the use of mobile phones.

c. Products classified as professional equipment

- The study team presented a suggested approach for potentially including products classified as professional equipment and the difference between them and household/consumer products.
- ECOS wondered if there are technical reasons why professional equipment should differ from household equipment, and asked the study team to consider listing all the similarities between these two product groups rather than difficulties and differences. The study team explained they tried to look first at some possible cases as the time limit would not allow for addressing all professional equipment.
- The Policy Offer stressed that household and office equipment is addressed in standby Regulation. Further professional equipment could possibly be addressed in a separate Lot, but professional equipment can only be addressed within the existing scope. For ICT products it is clear that class A and B are used for determining whether it is professional equipment. Cisco stated that class B products are targeted household and offices, but this is changing. Some clients demand professional products that are class B. The class A and class B distinction is not the best solution. Cisco proposed to use the Energy Star specification for large network equipment as a definition of professional products and based on this exempt large network equipment. This would solve the problem. The study team stated that this is addressing only network equipment comprised by the specification very specifically, but other product groups are not addressed in such details. The Policy Officer was of the opinion that questions like these could only be addressed in the frame of a review dedicated to networked standby.
- Cisco stressed that this issue should be addressed as soon as possible. Hewlett-Packard stated that the class A and class B distinction should complement the Regulation and it has helped in the past. But now there are very complex products in class B that should not be covered. A possible solution could be to keep the exemption of class A, but add some exemptions of different categories from class B.
- Germany mentioned that the time schedule is tight for assessing all the issues before the Consultation Forum in December 2015. The Policy Officer explained that if some issues are more complicated, it will be assessed how the timeline could be adjusted. However, this is an issue that goes beyond the consultants and their work.

d. Other products not in scope

- The study team presented other products that are not in scope but potentially could be, with an example of paper shredders that came out of speaking with Member States.
- Öko-Institut mentioned that they have made analyses for the German Blue Angel for paper shredders, where the requirement is 0.1 W. There are a lot of the product examples that can meet 0.1 W, so they can definitely meet 0.5 W in standby requirements. Öko-Institut added that there is no reason to define it as professional equipment, as there are many paper shredders sold in supermarkets. Every appliance

that has a plug for the power sockets should be covered by this Regulation according to Öko-Institut. The list can be enlarged to all products, which can be plugged in.

- The study team stated it is probably difficult to extend the scope to all products that can be plugged in and it is not within the scope of the review. It may though be possible to cover all products that can be used for offices and home offices in a business machine group category.
- Öko-Institut stated that it should save energy and money for consumers. It is suggested to look at how big the market is firstly. If they have high consumption but only sold few of them, then it doesn't make sense to include them. The study team confirmed that assessments of size of markets are part of the study scope.

6. Focus aspects of review study (REQUIREMENTS)

a. Level of ambition for standby/off operating modes

- The study team presented the analysis for standby/off mode requirements and an example calculation of potential energy savings that could be achieved if the standby mode was 0.20 W to illustrate the size of potential energy savings. The idea behind the calculation was to see if there would be a sufficiently large possible saving potential that could justify further assessments.
- Cisco questioned how study team came up with the figure of 0.2 W. The study team explained this is not based on an assessment on what is possible in technology, but it is an example showing the potential of an optimistic scenario. The study team added that they have received information from Market Surveillance Authorities about the standby/off consumption, which confirmed a downward trend from the current level 0.5 W. Furthermore, the benchmark values in the current regulation are about 0.1 W for standby. Finally that values from the draft working document for revised EPS regulation and from the draft Regulation on Ecodesign requirements for displays showed values for standby/off at around 0.1-0.2 W.
- Liberty Global asked if data supplied by the manufacturers would be published to all stakeholders. It is stated that the study team needs to be factual about where to draw the line and they need data for doing that. If necessary, data can be kept confidential and if relevant, a Non-Disclosure Agreement can be signed.
- Cisco questioned how the study team obtained the market trend that the consumption is going down. The study team answered that it is from Market Surveillance Authorities' testing results over the years. In addition to look at testing results and product consumption data, the study team also looked at power budget from active components on standby. The study team invited the stakeholders to share power budget data from specific components with them and these data would be appreciated.
- Liberty Global stated it is already a huge effort industry has to make for meeting 0.50 W. The limit is almost reached; the industry might not be making any profit with 0.20 W.
- Sony explained that the downward trend is due to manufacturers trying to meet the 0.50 W reliably, which is resulting in lower consumption than the requirement to cope with uncertainties.
- ECOS asked study team to get into touch with Topten. Their consumption data shows many products already at 0.30 W. Hewlett-Packard stated that Topten might not be representative of all products groups

covered in the Regulation. Looking at benchmarks may be good for vertical regulation, but one should be careful when used for horizontal regulation due to the broad range of products covered.

- The study team mentioned that costs of modification are also being looked into. Liberty Global asked how the study team would carry out cost assessment in horizontal regulations. The study team answered it is through representative base cases; even in vertical regulation there are many various product types, and it is always necessary to work with base cases. The study team should develop several base cases that are very different. It is difficult, but this is also how it has been done in the past.
- Öko-Institut asked how many products are not compliant, and if there is any data about those products. The study team explained that we will get some data from Market Surveillance Authorities. Furthermore, according to the MSAs' input, there are generally no problems to comply from their own assessments.
- Paolo Tosoratti stated that as part of the display revision it is found that there are real display products on the market with 0.10 W in off mode. Hewlett-Packard stated that this is different for vertical compared to horizontal measures. Vertical regulations can be more precise but horizontal measures include a lot of different products. Cisco stated that 0.50 W is almost the minimum, and 0.10 W is going to cost the industry a lot.

b. Appropriateness and level of ambition for networked standby requirements from the 3rd stage implementation (2019) for non HiNA-equipment

- The study team presented a preliminary analysis of networked standby requirements based on power budgets for components and circuitry (power supply (losses), network interfaces and network active components). Two simple examples (a good and a bad) for the consumption of networked products in networked standby were presented.
- The Policy Officer mentioned that the background for selecting 2 W as the 3rd stage limit was the conclusion of the preparatory study for lot 26, which was based on the consumption of LoNA (Low Network Availability) equipment. It was a long process, which the industry was consulted all along as well.
- Cisco stated they are having problems meeting 6 W and 3 W today. So they rely on inappropriateness for intended use if they can't meet the requirements. Öko-Institut stated that the limits of 12 W and 6 W are so high, that it is hard to believe that the limits cannot be set lower. Cisco gives the example of a settop box, which in receive mode uses much energy. Germany asked which functionalities in the settop box need so much energy. Cisco explained that Wi-Fi and HDMI network ports do – they have to be active when they are being tested for networked standby. The study team stated this touches the verification procedure. One should test one port at a time. A harmonised test standard is under way.
- PACE stated that 2 W for Ethernet connection back then was doable on network standby. 2 W is no longer possible, because use of technology has changed.
- Cisco mentioned that the slide shows the consumption in watts for Wi-Fi, and asked what type of Wi-Fi it is. The type of Wi-Fi means a lot to how much it consumes. The study team stated they are aware of the differences for different Wi-Fi protocols and that there are several consumption data connected to it. The study team is looking into getting more data for different connections.
- Liberty Global stated that slide 52 shows a simplistic picture of settop box or whatever product it is, but in fact they have multiple main functionalities today, power processors should be included. It is suggested to use a different approach for coming up with a figure. The study team stated these other functionalities are

part of the box “NW active components“. Furthermore, it should be remembered we refer to non-HiNA. Liberty Global stated that also non-HiNA has multiple functionalities and need power processors and other aspects. The study team answered that we can include settop boxes as a base case.

- Cisco mentioned that when a box goes to networked standby, in reality users want the wake up to be instantaneous. The study team should look at the system as a whole. The study team answered all what needs to be active during networked standby is being looked at.
- Liberty Global stated that lowering limits would push industry to claim inappropriateness. The Policy Officer asked the Member States if there are examples of industry being pushed to claim inappropriateness for intended use for standby. Similar examples can also be useful for the network standby. Cisco answered if they cannot comply, they will look at other solutions to be exempt or will make three boxes with different functionalities next to each other.
- The study team mentioned that a regulation should not be the same as BAU, otherwise there should not be a regulation, because there is no need for it.
- PACE mentioned that they need to start designing now if they want to comply in 3 years. So the technology needs to be ready right now, but it is not.
- Sony did not want to provide detailed engineering data consumptions, because it is very confidential. But they might be able to offer more general consumption information.
- Cisco asked what the conclusion is for this subject. The study team answered that they will be analysing the issue further, and will include a variety of base cases (e.g. settop box). Data will be kept confidential, and if needed, a NDA (Non-Disclosure Agreement) can be signed.
- PACE mentioned range differentiation – Bluetooth and Wi-Fi have very different ranges, and wondered if it would possible to have different requirements for different ranges. The study team stated that the technological development is too fast to set different requirements for different network protocols and hardware. Öko-Institut mentioned that it should not to be forgotten that almost all appliances are becoming networked products. If all of them consuming 2 W in networked standby, it is a lot of energy.

7. Other areas of review

a. Ambiguous definitions

- The study team presented ambiguous definitions collected from Market Surveillance Authorities (MSAs) and dialogue with industry stakeholders. Examples of problems caused by these ambiguities were presented, and comments and questions raised for discussion with the stakeholders for each of these definitions. The study team asked Member States to provide further input.
- The UK suggested addressing these questions directly with ADCO and Market Surveillance Authorities. The study team mentioned they have already provided input, and as stated, the input received has been presented for further comments. Germany mentioned part of the results presented by the study team were provided by Germany’s Market Surveillance Authorities, and said they would try sending more examples in the next future. They study team asked industry to comment.
- The Policy Officer mentioned that the term "main function" is not fully unambiguous and thus sometimes create problems, as the Member Surveillance Authorities have difficulties to define what intended use and

main function is. She stated that the manufacturers have the responsibility to define the main function and have to make sure the Market Surveillance Authorities are aware of it.

- PACE mentioned that the problem in the Horizontal Regulation is that it refers to 'the main function' and not 'the main functions', which creates misunderstandings.
- An example of a washing machine was mentioned, where safety is very difficult to separate from main function, therefore it could be appropriate to determine a separate, product-specific function in the frame of the vertical regulation.

b. Products covered under other Vertical Regulations and Voluntary Agreements

- The study team presented interfaces of the horizontal regulation with vertical regulations and Voluntary Agreements to illustrate that there is no risk of double measures of the standby horizontal measure and other vertical ones.
- Sony asked whether Voluntary Agreements are considered vertical regulations. As discussed in the past, Voluntary Agreements can be an alternative to vertical regulations but are not the same and do not have the same legal status. Sony mentioned that a Voluntary Agreement is now available for game consoles.
- CECED pointed out that for completeness – the table should mention that standby consumption is included in the calculation of EEI for washing machines and should be used as inspiration. ECOS pointed out that there is discussion for excluding this element from the formula for washing machine.

c. Other areas of review

- The study team presented the question (further clarified by the Policy Officer) of whether it is necessary or possible for a networked product to go back to standby if it no longer needs to stay connected.
- Cisco stated that it depends on the use cases whether the product wants to be reached remotely or not. CECED stated that there could be some ongoing updates for correcting failures and errors etc. after finishing a cycle or in general. It might not make sense to switch to normal standby. Samsung stated that they need to check what is possible. As expected for Internet of Things, the users want products to be connected. Liberty Global asks if study team knows how users actually use the products and if they use the standby mode or not. It would be useful to know.
- The study team presented some other issues brought up by Digital Europe about possibility to deactivate wireless network connections and about the verification procedure. The first issue regarding deactivation of the wireless connections was related to alarm systems using wireless systems, Bluetooth interface communicating with several devices and wireless adapters such as access points and repeaters. The study team answered that for the alarm system and for the Bluetooth interface, it would probably be comprised by the rule about non-deactivation, when the product relies on a single wireless connection for the intended use. For wireless adapters, these are seen as not falling under the rule, because they are not edge devices. The Policy Officer informed that the requirement on wireless deactivation was mainly in the current Regulation for consumer protection reasons regarding electromagnetic fields.
- The issue regarding the verification procedure was about verification of DOCSIS cable ports, because the product has higher consumption when DOCSIS ports are not connected because they send out beacon searching for connections constantly. The same concerns MoCA. Therefore testing with just one port

connected would make it more difficult to comply. Öko-Institut stated it is not so important if the ports are deactivated or not, but that the product is consuming energy for non-connected ports and not-used wireless connections and that the ports should power down. The recommendation from the manufacturers was to require deactivation of ports instead of pulling out the cable.

8. Next steps

- The study team summed-up the meeting and encouraged the stakeholders to send data to the study team in the next 1-2 weeks, as the review timing is tight.