



ANEC/BEUC PRELIMINARY COMMENTS ON DRAFT ECODESIGN REQUIREMENTS FOR NETWORKED STANDBY

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Summary

- In the context of the implementation of the Ecodesign of Energy-related Products (ErP) Directive, the European Commission is proposing to amend the 1275/2008 Regulation on the power consumption of products in standby to accommodate requirements on the power consumption of networked products.

- This paper outlines the main consumer-relevant issues related to the possible ecodesign requirements and recommends improvement options. We give specific, technical recommendations to increase the energy efficiency and at the same time guarantee satisfying network availability of these products.

- Our main points are the following:

- The European Commission's **proposal to tackle networked-standby horizontally in a single text yet in a flexible manner (exemptions on technical basis are possible) is much welcome**. It avoids going through the uncertain process of establishing specific requirements for each product group. We consider it of the utmost importance that products covered or in the process of being covered by a voluntary Agreement do fall within the scope of the proposed amendment.

- Although the approach suggested by the European Commission is sound, **the exact values it proposes (for e.g. on when precisely a product should switch to a low power consumption networked mode) are not ambitious**.

- The European Commission's **working document falls short of proposing meaningful requirements regarding information to consumers**. The power consumption of networked products has traditionally not been transparent. The current process offers an opportunity to require that manufacturers inform consumers better on the implications of their purchasing choices and usage patterns on their electricity bills.

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BACKGROUND AND GENERAL REMARKS

Why regulating the power consumption of networked products is necessary

As evidenced in the 2011 Preparatory Study commissioned by the European Commission, the number of appliances featuring network connectivity is booming, covering a wide range of products from computers to washing machines and digital TV decoders.

The European Commission's rationale for setting Ecodesign requirements for networked products is the following:

*"The Preparatory Study for this Ecodesign lot suggests that the electricity consumption of networked household and office equipment is significant (90 TWh, i.e. approximately the annual final electricity consumption of Finland), and significant potential for cost-effective improvements exist (around 40 TWh by 2020 according to preliminary estimates of the study). The improvements are mainly linked to the fact that network availability is currently provided by on- or idle-modes, and products are not entering low-power modes. **A "networked standby" condition that maintains a certain level of network connectivity but deactivates main function(s) could decrease overall energy consumption of a "networked" product by ensuring that the product can be reactivated via a network without being in the on- or idle-mode.**"¹*

The horizontal approach

To tackle the issue of power consumption of networked products, the European Commission proposes to amend Regulation 1275/2008 (the "Standby Regulation" setting limits on the energy consumption of products when in standby mode). The amendment would add extra, generic standby requirements for products featuring a "networked standby" function.

From ANEC and BEUC's perspective, **this approach is much preferable to an approach consisting in setting individual networked standby requirements** for each product, a long and uncertain process.

We also welcome the proposal that the scope of Regulation (EC) 1275/2008 is not changed by the amendment. This is important as it guarantees that all products including those products covered by voluntary agreements (e.g. complex set-top-boxes) will fall under this Regulation.

Most importantly, we welcome the Commission's proposal not to exclude from the scope these products covered or in the process of being covered by a Voluntary Agreement under the Ecodesign Directive (e.g. Complex Set-Top Boxes).

Consumers must be informed about the power consumption of their networked products

¹Explanatory notes on the European Commission's draft Ecodesign measure for Networked Standby.

The European Commission's current proposal does not really take into account consumer-relevant information issues. It is of high importance that consumers are informed about power consumption in the various modes. Therefore, it should be considered to integrate requirements to:

- display information on modes and their respective power consumptions in the product manual;
- provide information on how to deactivate networking functions;
- provide a visual indication on the present mode (e.g. illumination diode is on if a product is in networked standby);
- provide information on the possibility to completely switch-off the product (e.g. information on data-storage and losses).

In addition, it should be required that during the first installation of a product, consumers are asked by the set-up menu to specify their required "home-mode" (e.g. default delay time, activated and deactivated ports)².

I. DEFINITIONS AND MINOR WORDING ISSUES

1. Definition of "network"

The European Commission's Working Document defines 'network' as follows:

'network' means an infrastructure with a certain topology of links, an architecture including the physical components, organizational principles, communication procedures and formats (protocols);

In order to avoid misunderstandings, **we recommended adding for e.g. "to transmit and process digital data"**. Otherwise, all types of non-digital networks could fall under this definition (e.g. metro-networks).

2. Definition of "Remotely initiated trigger"

The Working Document defines 'remotely initiated trigger' as follows:

'remotely initiated trigger' means a signal that comes from outside the product;

Here, it is important to avoid that systems encompassing various components are regarded as several products. If for example a TV and its remote control are regarded as two different products, this would lead to the situation that a TV will always be in a networked condition allowing for less stringent standby-targets as under the original Standby Directive. Similar cases could apply for computers (mouse, keyboard).

Here, it is advised to **further define "product" as a device or bundle of devices that are typically bought and used together.**

² The term "home-mode" is already used in the Regulation (EU) 1062/2010 on energy labelling of televisions.

3. Definition of “resume time”

The Working Document defines ‘resume time’ as follows:

‘resume time’ means the time that the product requires to resume a main function after a remotely initiated trigger has been detected by a network port.

Here, uncertainties may result from the fact that **“main function” is not defined at all**. With the current version of the working document, manufacturers could in theory argue that “waiting for a signal” is a main function, thus making networked-standby requirements completely obsolete.

Although it might be difficult with some hybrid-products, **we recommend that every manufacturer has to define exactly one key function for each product**. Exemption for more than one key function per product should require a technical justification by the manufacturer. This point should be integrated in chapter 5 (Ecodesign Requirements – Information to be provided by manufacturers). Alternatively (or in addition), a clear definition of main function is needed.

4. Number of “network availability classes”

The European Commission suggests setting differentiated Ecodesign requirements for products, depending on whether the products considered need “high network availability” or “low network availability”.

The application of two network availability classes (in contrast to three classes: high, medium and low network availability) is welcomed as it effectively reduces the efforts and uncertainties of classifying products into one of the classes.

5. Inconsistency in the definition of “networked standby”

In Chapter 1 on definitions, the definition of “networked standby” defers from the definition proposed in the Preparatory Study:

Definition in the Working Document:

“networked standby’ means a condition where the product is able to resume a function (reactivation) through remotely initiated trigger via a network connection (remote access)”

Definition in the Preparatory Study:

‘Networked standby modes’ are conditions, in which the equipment provides reduced functionality, but retains the capability to resume applications through a remotely initiated trigger via network connection.

We believe that an adaptation to the version in the Preparatory Study could lead to higher consistency.

6. Wording issues:

- o Compliance with Regulation 1275/2008:

Paragraph 1 (c) is formulated as follows:

Products that have a standby mode as defined in Regulation (EC) 1275/2008 shall comply with the requirements for this standby mode if no network port is connected or, for wireless network ports, the network ports are switched off.

The wording is quite complex; we recommend that it is reshaped as follows:

All products shall comply with standby mode requirements if no network port is connected or, for wireless network ports, the network ports are switched off.

- o Network ports switched on:

Paragraph 1 (e) is formulated as follows:

The power management function shall be activated before delivery, unless all network ports are switched off before delivery. In that case the power management function shall be activated if one of the network ports is switched on.

In order to avoid loopholes it is recommended to integrate “at least” in the last sentence:

[...] In that case the power management function shall be activated if at least one of the network ports is switched on.

II. ECODESIGN REQUIREMENTS

1. Power consumption limits

The power consumption limits proposed by the European Commission are widely in line with the suggestions of the Preparatory Study. Nevertheless, we argue that **3W should be introduced for Tier 1 of the “low network availability” network standby mode**. The 3W limit was already suggested in the Preparatory Study yet the European Commission now suggests 4W without providing a satisfying explanation.

2. “Network availability”: a sound approach for quick implementation of the regulation

In paragraph 1 (a) on page 2, the European Commission’s working document reads as follows:

When a networked product is not providing a main function, or when other energy-using product(s) are not dependent on its functions, the product shall, unless inappropriate for the intended use, offer a power management function, or a similar function, that switches the product after the shortest possible time automatically into a mode having networked standby with Low network availability. If Low network

availability is not appropriate for the intended use, as it has to be technically justified by the manufacturer in the technical documentation, the product may be switched to a [network standby] mode having High network availability.

If the network availability specified by the manufacturer is low then the power management function may switch the product first into a mode of High network availability before switching the product into a mode of Low network availability. The product shall be in a mode of Low network availability after the shortest possible time and after 1 hour the latest.

We consider the approach that all products are to be classified as Low network availability (LoNA) unless High network availability (HiNA) is technically justified by the manufacturer as a **very good approach to bypass the difficulties³ to objectively distinguish between the two classes**. This approach widely avoids laboratory tests and therefore allows for quick implementation of networked standby requirements.

The suggestion that products are in the first place classified as LoNA (unless justified by the manufacturer) is reasonable: as more stringent requirements are foreseen for LoNA-products, this will avoid easy escapes to the less stringent HiNA-class.

3. Ambitious time limits are needed for both network standby modes

- o Time limits for the “low network availability” mode:

The text of paragraph 1 (a) on page 2 (see above) specifies that LoNA-products shall be in a mode of Low network availability after the shortest possible time and after 1 hour at the latest.

However, the chosen default delay time of 1 hour is not in line with the recommendations of the Preparatory Study, which suggests 20 minutes for tier 1 and 10 minutes for tier 2. **We strongly suggest referring to the default delay times of the Preparatory Study instead of the 1 hour currently found in the Working Document.**

In order to avoid situations in which consumers are interrupted by short default delay times (e.g. during TV-consumption), the text should allow an appropriate exemption mechanism (“unless technically justified by the manufacturer”). With the suggested 1 hour delay, it is the exemption that would become the rule.

- o Time limits for the “high network availability” mode:

We find it surprising that no time limit is mentioned for HiNA-products. As suggested by the authors of the Preparatory Study, **we argue that 10 or 20 minutes should be applied as default delay time for HiNA-products.**

- o Measurement of time limits:

It is nowhere specified when the measurement of the 1 hour (or as proposed in the Preparatory Study: 10 and 20 minutes) should start. This issue is neither clarified in the Ecodesign Requirements, nor in any existing measurement procedures. The

³ Stemming from a lack of standardised test-procedures to exactly measure the resume time to application.

Working Document's chapter 6 on Verification Procedures does not provide any substantial help.

In order to have a sound and coherent Implementing Measure, **we recommend that the Commission defines the last user interaction as the starting point for default time.**

III. INFORMATION TO CONSUMERS

The power consumption of networked devices has long not been transparent to consumers. The latter are rarely aware of the power their networked products consume and the implications of their own usage patterns on their energy bills.

Although the European Commission's working document is an interesting attempt at addressing the power consumption of networked products at the manufacturers' level, **it offers little in terms of informing consumers and facilitating customization of power management features.** As a result, we fear that power consumption of networked products will remain opaque to consumers, hence preventing more savings from taking place.

1. Hard switches are needed on networked products

More often than not, such networked products as Complex Set-Top Boxes do not have a hard switch. Moreover, we have been made aware of disturbing reports that **some high-profile companies now ship boxes with "fake hard switches", i.e. hard switches which only switch off the LEDs on the box but do not switch off the rest of the appliance.** If proved to be true, this development is particularly worrying and **misleading for consumers.** Along with manufacturers, **it is the European Commission's responsibility to tackle that development.**

We recommend that the European Commission requires manufacturers of networked products to include a hard switch on their appliances. The hard switch should do what it is expected to do, i.e. completely shut down the product.

2. Default status of the wireless connectivity feature

For products including a wireless connectivity feature but for which the said feature is not critical to their functioning, the European Commission should require that the feature is switched off by default and that consumers be automatically offered the possibility to switch it on when powering the unit for the first time.

3. Information on power consumption in networked-standby modes

In section (b) on page 4, the text requires manufacturers to provide the following information:

for networked products, for each network port:

- *the level of network availability: HiNA or LoNA of the mode in which the product is switched (eventually) into by the power management function,*
- *the (maximum) time after which the power management function will switch the product into this mode,*
- *the trigger that is used to reactivate the product,*
- *the (maximum) performance specifications,*
- *the (maximum) power consumption of the product if only this port is used;*

Here, the last line could lead to problems, as the term “used” is not further specified. It could mean that a cable is plugged in, or that data is transferred. We understand that the aim of this paragraph is to provide consumers with information on the networked-standby power consumption. However, we doubt that this formulation will yield this type of information.

We therefore recommend using the following wording:

- *“the (maximum) power consumption of the product in networked-standby mode”*

4. Information on power consumption in networked-standby modes

Paragraph 1 (d) is formulated as follows:

If a networked product has the ability to connect to a wireless network, the product shall offer the possibility for the user to disable individually each wireless network port.

The paragraph is meaningful. Nevertheless, it does not specify how consumers should be informed about the said possibility to “disable individually each wireless network port”. We recommend introducing a further specification.

E.g. “Users shall be informed about this possibility in the product manual and in the set-up-menu in a comprehensive and easily understandable manner.”⁴

END.

⁴ Stakeholder ECOS (representing Environmental NGOs in the Ecodesign process) reports as an illustration that an internet gateway going to a very low-power mode (instead of high network availability standby) during the night and working hours from Monday to Friday would save 55 kWh over a year. Applied to all EU internet gateways, this represents 8 TWh / year of additional savings.