EUROPEAN ENVIRONMENTAL CITIZENS ORGANISATION FOR STANDARDISATION

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ORGANISATION EUROPÉENNE ENVIRONNEMENTALE CITOYENNE POUR LA NORMALISATION

Comments from ECOS (on behalf of Environmental NGOs) on the Ecodesign Lot 26 (Networked standby) preparatory study

Date: 23/02/2011

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Preliminary note:

ECOS congratulates the consultants for the amount of interesting expertise provided in this study and the general good quality and clarity of the content viewed so far (draft tasks 1 to 7).

The main issue we identified is the weakness of task 3 on user behavior and expectations. Most of the statements there are based on intuitions and are not enough discussed. This leads the consultant team to focusing the rest of the study only on certain aspects and neglect others.

In this paper, we develop our views on this and make some concrete suggestions for task 8 on policy options.

1. Networked standby modes as a problem

The preparatory study generally covers and analyses only one side of the story: networked standby modes considered as a solution (allowing to save some energy compared to leaving a product fully on or in idle state).

The study describes several types of possible intermediate modes with network availability, and powering down to these modes is supposed to be the "*principal improvement potential*" (more important than the power level of these modes).

We have a fundamental concern in that this approach mostly misses the other side of the story: networked standby viewed as a problem in itself, when it tends to replace unplugged, off and regular standby modes thus triggering an increase in energy consumption. The supposed need to maintain a constant network availability and fast reactivation 7x24 as a default state on an increasing range of products is hardly questioned, and especially not in Task 7.

In task 3 - the weakest part of the study -, several intuitions and simplistic statements are provided without background reference. One example is: "*if it were possible, consumer preferences would be for the services their devices provide to be instantly available from anywhere in the world*". Then the study adds: "*statistical data regarding consumer requirements are not available*". Therefore the previous statement is not substantiated and should be seriously questioned.

The study for instance does not discuss the 'trade-offs' that consumers could be ready to consider if they are well informed (e.g. refusing that network reactivity is constantly available by default if it is at the cost of a higher energy consumption).

Another example of pointless networked energy consumption is when a device on a network forces other devices to remain awake while the user might be perfectly happy to have them go to a regular standby or off mode most of the time.

The number of domestic/office functions and users for which fast reactivation and network connectivity is vital at any time of the day is in our opinion very limited. The concept that more and more products should be constantly 'networked' is partly a myth partly a marketing trend that we consider incompatible with the sustainability agenda. As the study for example remarks: "*it is estimated that most computing energy consumption (in the US) occurs when no one is present*".

The trend to network more and more equipment is probably very much linked to the parallel trend from manufacturers to develop wireless models and wireless technologies. **The consequences for human health and the environment is an issue which should be seriously addressed**. It has been completely neglected in the study.

2. Expectations from ECOS and environmental NGOs

The role of the Ecodesign policy is to participate in correcting unsustainable trends and market failures. Therefore, it should introduce provisions **not only on better power management and energy efficiency of networked standby modes, but also on finding ways of limiting the rush for constant network availability set as default**.

We do not consider that just powering down products to some networked standby modes consuming several Watts is a sufficient answer to the challenge. Provisions to limit the use of networked modes are also needed, as well as aggressive cap limits **with a mid-term goal of aligning them with the level of non-networked standby**.

In the absence of such an approach, NGOs would simply keep on publicly criticizing the trends to networked standby modes and advise people to unplug / use multiple plugs with switch when they do not use their products.

3. Practical examples

We will use the 5 examples commonly referred to in the study to illustrate with more practical questions our doubts regarding networked standby modes.

- Networked printer: it should be questioned what happens outside typical use hours (e.g. at nights and during week-ends for office products). Isn't the networked standby then becoming an energy wasting instead of an energy saving mode? Good product design should address this.
- VPN: is it more energy efficient to store files (such as address book, pictures, videos…) on a PC with WoL under a VPN or on a proper server in a data center shared by thousands of other users? Such calculations should be made in order to understand the impact of a VPN (even with networked standby) against other solutions.
- Office system administration: does system administrator's needs to remote access to a large number of distributed computers means that all these computers shall be available at the same moment? Smart office networks should be able to perform tailored updates on computers when these are switched on and in idle (so that it is possible to switch them off or hibernate them when the user is not present).
- Consumer media products: the case of CSTB and complex TVs is a typical example where the Ecodesign directive shows limitations to involve service providers. The voluntary initiative on CSTB could for example be quickly extended to complex TVs and should be put under pressure to offer a greater added-value, set longer term targets and deliver clearer results.
- Home gateway and network: the issue is not necessarily the reactivation latency needed for the whole product, but for the different functions in a multi-functional product. The solution here would be to better isolate the different functions so that only the needed ones (namely, the phone line service) are left active at all time while the others are powered down.

4. Suggested Ecodesign requirements

We propose the following requirements for consideration in the study and future legislation. Some are inspired by the improvement options presented in the draft task 7, some are additional.

Requirements to limit the trend to energy consuming networked modes:

- Generic requirement #1:

Products including network/wireless features for which the main functionality is not network access shall be shipped with the network features and wireless emissions disabled by default.

- Generic requirement #2:

Networked products shall be designed so that when they are unplugged/switched off and re-plugged/switched on they do not lose any primary functionality or main configuration.

- Generic requirement #3:

In user manuals and guidelines for office intranet, users shall never be encouraged to leave their products on (especially when they do not make a daily use of them).

(A very limited number of exemptions could be set for these requirements.)

Requirements providing more information and control to the user on standby modes:

- Generic requirement #4:

Networked standby modes shall be designed so that the user can clearly understand that the appliance is still on and consuming power (e.g. through a blinking LED display, a color code, etc). It shall be ensured that networked standby modes cannot be mingled with off mode (see e.g. IEEE 1621 for reference).

- Generic requirement #5:

Networked products shall have a visibly placed switch allowing the user to manually transfer the product to the lowest standby/off mode.

- Generic requirement #6:

Energy-using product including network reactivation functions shall have a menu allowing the user to chose the parameters for the automatic power down regime, including at minima:
- which mode the appliance goes into (i.e. with network availability or not)
- duration of latency period before powering down
- possibility to set night/week-end set back programs.
This power management menu shall automatically pop up at first use of the product to request user configuration. The 'default' setting can be specified using task 7 of the preparatory study.

- Generic requirement #7:

User manual and power management menus shall provide the average energy consumption for all available standby modes.

Requirement on multi-functional products:

- Generic requirement #8:

Multi-functional products for which not all the functions need instant network availability at all times (ex.: GW and triple play boxes with VoIP) need to include the most efficient power management and power island technologies to ensure that the product can go in a networked standby state in which only the strict minimum of power is drawn for the active function (e.g. VoIP).

Aggressive limits on networked standby modes:

- *The power caps proposed in the study task 7 (based on existing technologies) may be used as a first stage of specific minimum requirements.*
- ***They should be complemented by a longer-term objective of aligning networked standby modes with the levels of passive standby modes (i.e. less than 1 or 2 W).*** **Industry may not be able to achieve this today, but should be clearly driven towards this goal.**

All these requirements could be applied using a horizontal measure. In order to accommodate the few cases where these limits would be technically impossible to reach or inappropriate, a list of the scope of products covered or a list of exemptions to the rule could be included. This list would be updated at each revision of the Ecodesign measure.