



Eco-design requirements for computers: Comments from ecee to the Consultation Forum

2009-10-07

ecee welcomes the proposed eco-design requirements for computers and their alignment with Energy Star specifications. However, the proposal fails to acknowledge the fast development of computer technology. The slow introduction of the mandatory eco-design requirements means that they will only remove a fraction of products on the market. It is therefore important that the Tier II requirements are brought forward to July 2011 for the requirements to be justified and the costs of implementing the regulation to be justified.

ecee's main comments in summary

- ecee supports Energy Star Alignment in general. By applying the regulation early, EU creates room for influencing upcoming Energy Star specifications in the near future.
- The mandatory requirements are thus introduced far too late: Tier II requirements should take effect 31 July 2011 instead of January 2013. Projected market penetration rates in the Working Document show that 89 % of the products are expected to meet Tier I requirements when it comes into force in January 2011 and 95 % of the products to meet Tier II requirements when it comes into force in January 2013. This is not cost effective from either a consumer or environmental perspective and will not deliver enough energy savings.
- The Commission may also wish to consider skipping Tier I requirements completely, which would also make the regulation easier to apply since the definition of efficiency differs between Tier I and Tier II.
- The requirements should be revised after three years instead of five years in view of the rapidly improving nature of this industry.
- Chapter 4 proposes to exclude computers from the list of energy-using products in the Regulation (EC) No. 1275/2008 (stand by). The Wake up on Lan (WOL) function belongs to a networked standby requirement. Until an implementing measure for networked standby has been prepared, WOL requirement could be included in the eco-design requirements for computers.
- There is a particularly strong energy efficiency benefit by removing computers from the mercury exemption list of the RoHS Directive. Laptops that use light-emitting diodes (LEDs) as backlight instead of cold-cathode fluorescent lamps (CCFL) use no mercury and are more energy efficient. The Commission should inform the working group revising the RoHS Directive that it is possible (technically and economically) to remove CCFL (cold cathode fluorescent light sources) used in LCD screens – e.g. in notebooks and integrated computers - from the RoHS exception list, from January 2012, with high energy efficiency benefits.

About the European Council for an Energy Efficient Economy (ecee)

ecee is a non-profit, membership-based European NGO. The goal of ecee is to stimulate energy efficiency through information exchange and co-operation. To facilitate this, ecee provides an information service through its website and e-mail newsletter, arranges workshops and conferences, and takes active part in the European Policy making process.

One of ecee's principal events is the Summer Study, held for five days every odd year in the early summer. The Summer Study attracts more than 350 participants from a wide range of backgrounds. ecee and its summer study offer governments, industry, research institutes and citizen organisations a unique resource of evidence-based knowledge and access to reliable information.

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eceee comments in more detail

Alignment with Energy Star

eceee strongly supports the alignment with Energy Star specifications since we favour global harmonisation of specifications and definitions whenever possible. Where justified, additional requirements or different definitions may be applied in the eco-design regulations. When applied wisely, The Energy Star specification and the eco-design requirements can become a powerful tool to accelerate market transformation of energy efficient products. When a given Energy Star specification covers too large a share of the market, a new version is applied to encourage development of new, more efficient models. Here, eco-design requirements can help remove slow moving products. Through EU and US EPA Energy Star agreements, new specifications can be developed, building on what has been achieved through the combination of voluntary programmes and mandatory requirements.

By applying the regulation early, EU creates room for influencing upcoming Energy Star specifications in the near future.

Timing of requirements

The mandatory requirements are introduced far too late. Requirements should be introduced based on a societal cost-benefit analysis. There is room for a much tighter time frame: The projected market penetration rates in the Working Document show that 89 % of the products are expected to meet Tier I requirements when it comes into force in January 2011 and 95 % of the products will meet Tier II requirements when it comes into force in January 2013, according to the current proposal. It seems hard to justify the administrative burden of a legislation that effectively removes a few percent of the products from the market.

Tier II requirements should take effect 31 July 2011 instead of January 2013. The Commission may further consider to skip Tier I requirements completely, which would also make the regulation easier to apply since the definition of efficiency differs between Tier I (idle state maximum power levels) and Tier II (Typical Energy Consumption).

Revision

The revision of the regulation should be made after three instead of five years, given the fast development of computer technology.

Stand by requirements

Chapter 4 proposes to exclude computers from the list of energy-using products in the Regulation (EC) No. 1275/2008 (stand by). The Wake up on Lan (WOL) function belongs to a networked standby requirement. Until an implementing measure for networked standby has been prepared, a WOL requirement could be included in the eco-design requirements for computers.

Mercury, RoHS exemptions and energy efficiency

There is a particularly strong beneficial link between removing computers from the mercury exemption list of the RoHS Directive and improved energy efficiency. Laptops that use lighting-emitting diodes (LEDs) as backlight instead of cold-cathode fluorescent lamps (CCFL) use no mercury and are more energy efficient. It is technically and economically feasible to use LED instead of CCFL technology and the Commission should communicate to the working group revising the RoHS Directive the need to remove computers from the list of exemptions before the end of 2011.

Other specific remarks

Benchmarks

The definition of benchmark in the Working Document is questionable. To use the “best product available” on the market is misleading, which becomes evident when the benchmark for category C is higher than for category D.

In addition to the benchmark lists, a benchmark value of mercury content of 0,0 mg mercury could be described (based on current LED technology for backlight).

Similarly, regarding off-mode power consumption, there seems to be no technical justification why the benchmark for the off-mode power consumption can not be 0 W for all categories.

Specific remarks regarding revision, definitions and harmonisation with Energy Star requirements

Several of the definitions and requirements appear to rapidly become obsolete and inconsistent with market trends and societal cost-effective energy efficiency requirements for computers. However, the value of harmonising the requirements with Energy Star is so high that EU should not start defining diverging requirements. Therefore, it is important that a discussion with Energy Star is started as soon as possible so that several of the below points can be revised in future Energy Star specifications and eco-design requirements. This also underlines the need for an earlier revision of the eco-design requirements.

- Convergence in requirements for work stations and desktop computers. Desktop computers are rapidly evolving and the difference from work stations is becoming less clear over time. The products that used to be defined as work stations, are today the ordinary ones.
- Stricter requirements for desktop computers. The preparatory study concluded that there is no technical reason for the difference in energy efficiency of desktop and laptops. This difference could be reduced substantially and the requirements should reflect this. This is partly evident when comparing the efficiency of Category C and D in the benchmark list: Category D, which has higher performance, has lower energy consumption. Technically, the function of a desktop is similar to a laptop. Stricter requirements are imposed to desktop computers, encouraging in this way convergence towards energy efficiency levels of notebooks.
- Shorter start up time for a greater use of power management capabilities. Power management is a very useful tool to decrease the energy use for computers. Still it is not used very much. Studies show that there are two main reasons not to use power management: (1) that power management might affect other software or functions of the computer and (2) that the start up time after sleep is too long. They can be both reduced by smart power management solutions. The time to start up, can easily be measured, and thereby easily regulated.

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