



## Environmental NGO comments on the revised EC Working Documents on Ecodesign and Energy Labelling Regulations for televisions and the draft Regulation on electronic displays, including computer monitors

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Environmental NGOs welcome the new working documents, although regret that this revision has now accumulated such a delay that the ideal process of setting new tiers every two years for this fast-evolving product group has been disrupted. **We urge the Commission to accelerate the termination of the revision and publish the revised regulations swiftly, reaping the expected savings.**

The current proposal includes several positive aspects:

- Extending the scope to most displays
- Shifting from a linear to curved energy efficiency metrics
- Keeping formulas simple and technology-neutral (i.e. no undue allowances or favourable treatment for ultra-high definition, plasmas, 'fast' start modes, etc.)
- Setting Ecodesign tiers in a forward-looking way with a long-term tier at ambitious levels
- Addressing non-energy environmental issues
- Tightening verification tolerances and removing the unneeded tolerance for peak luminance ratio

We however believe a number of additional adjustments, given hereunder, would further improve the impact of these possible future regulations.

### No free ride for plasmas and maintain requirements for Ultra High Definition (UHD)/evolving technologies

We do not see any technical justification to exempt plasmas from tier 1. If manufacturers have decided to drop this inefficient technology in any case, then there is no reason to wait any longer before taking plasmas out of the market. While the plasma market share has indeed declined precipitously, excluding them from future regulation could result in the EU becoming a dumping ground for low priced, inefficient plasma TVs in the future. **Regarding signage displays**, following the information presented at the consultation forum and coupled with the ongoing discussions around the establishment of the next Ecodesign Work Plan 2015-2017, **we would welcome their inclusion in the scope of the current proposal on electronic displays**, due to their rapidly growing use in public locations and commercial buildings. These displays tend to be more brightly lit, larger and on longer hours than others displays, resulting in high energy use. We understand that the energy savings

potential is certainly non negligible, so they should be tackled at least, with respect to their energy consumption and introduction of information requirements; the latter would serve as the basis for possible further regulatory requirements at a later stage. Moreover, we **welcome the technology neutral approach taken for setting minimum efficiency requirements on the different technologies, including UHD/4k**. As the aforementioned technologies are already widely available<sup>1</sup> and may become mainstream markets in the coming years, they should not fall under any special regime. Evidence provided in a recent CLASP report (p.28)<sup>2</sup> shows that new technologies that reach the best resolutions should not require additional energy consumption. **We consequently want to ensure that the “enhanced performance display” definition is not limited to 4K, but also applies to models up to and including resolutions of 8K<sup>3</sup>**. Concerning the latter, should no adequate data be available at this stage, at least a reference should be made for 8K to be considered during the next review of this regulation at the latest. Additionally, the manufacturer’s proposal to add sizable on mode power adders for UHD TVs, would even further weaken the stringency of their proposed ecodesign requirements. As a reminder, the first high definition TVs used more power initially than standard definition TVs, however within a couple of years that differential disappeared. Additionally, the proposed requirements are set with a staged approach over a number of years, allowing further UHD technology to evolve. Consequently, **the proposed requirements should be maintained without any additional allowances (adders) to the on mode power consumption requirements**.

Further evidence regarding the performance of new UHD models on the market is expected by mid-2015; it is anticipated that the on mode power levels will be considerably lower in many cases compared to the first generation models produced in 2014. The use of energy saving technologies such as quantum dots/nano crystals in a greater number of models is expected to further bring down the energy consumptions of these TVs. We suggest that the Commission closely tracks developments on the ENERGY STAR website concerning the power use of new TVs. As ENERGY STAR 7 has just been finalised, new models will be qualified starting this January, which will provide further useful data on the even more efficient models that just entered the market.

### **Alignment between the Ecodesign and Energy Labelling regulations**

For obvious reasons of consistency and since the Energy Label is driving the market, it is crucial that the new formula is applied for the Label as well. We would therefore **strongly favour using the same metrics for both the minimum ecodesign requirements and energy labelling classes**. This means shifting the energy labelling metrics to the new proposed formulas. In addition, **the label requires a substantial rescaling**: the majority of products are populating the A, A+ and A++ classes, leading to confusion. We also suggest aligning the Ecodesign tiers with the Energy Label classes, which would facilitate the work for market surveillance authorities.

If the Commission prefers to postpone these decisions until the Energy Labelling Directive is revised, the proposed adjustments to the scale (boundaries of A++ and A+++ and display of the A+++-D scale) are the absolute minimum changes to be undertaken.

<sup>1</sup> European Commission Explanatory Notes on possible Ecodesign and Energy Labelling requirements for electronic displays

<sup>2</sup> <http://www.clasponline.org/en/Resources/Resources/PublicationLibrary/2014/EU-Ecodesign-and-Energy-Labeling-of-Electronic-Displays.aspx>

<sup>3</sup> There are already laptops that are marketed as being 5K (<http://store.apple.com/us/buy-mac/imac-retina>) as well as some prototype TVs presented at 8K already in early 2014 ([http://sharp-world.com/corporate/g\\_topix/ces2014/](http://sharp-world.com/corporate/g_topix/ces2014/))

### Set Ecodesign Tier 3 at BAT level

The general principle guiding the setting of Tier 3<sup>4</sup> is to target the best available technology (BAT) level. This principle is not adequately applied here, as shown in the table below for 4 screen-types:

	Maximum on-mode power according to Tier 3 formula	BAT (benchmarks in the WD)
55,9 cm diagonal	13.6 W	14.5 W <sup>5</sup>
81,3 cm diagonal	23.7 W	24 W
106,7 cm diagonal	37.1 W	31 W
139,7 cm diagonal	57.3 W	45 W

The requirements seem too strict for small displays and too lenient for larger ones.

A slight change to the tier 3 formula would lead to a better correlation:

$$Power_{max} = 1 \times [98 \times \tanh(0,04 + 0,005 \times (Area - 11)) + 4] + 6$$

Concerning the level of ambition put forward by manufacturers at the consultation forum, we find this as very weak. It essentially locks in efficiency requirements for Tier 3, which wouldn't go into effect until 2021, at today's ENERGY STAR Version 6 levels. Since more than 80% of the models today in the US already meet Version 6, this represents a very questionable level of ambition for fast evolving technologies, 6 years ahead in the future.

### Stricter standby requirements and elaboration of measurement methods

The proposed levels for passive standby are identical to those applying since 2011 and do not take into account the technological evolution and potential since then. Market data shows that displays can easily reach less than 0.3 W in standby today. We suggest replacing points 2.2. and 2.3. by the following formulation:

**12 months after the publication of the Regulation in the Official Journal of the European Union, the power demand of an electronic display in off-mode or standby shall not exceed 0,30 W.**

Besides, we are not supportive of additional allowances for voice or gesture activation, as these are not vital functions and would lead to relaxed standby requirements and more wastage of electricity.

### Safeguard the resource efficiency requirements

The EU has set itself, through the 7th Environmental Action Programme to 2020, the target of becoming a resource-efficient, green and competitive low-carbon economy. The annex to this decision (paragraph 36) is clear: "... the Union policy framework should ensure that priority products placed on the Union market are 'eco-designed' with a view to optimising resource and material efficiency. This should include addressing, inter alia, product durability, reparability, re-usability, recyclability, recycled content and product lifespan. Products should be sustainably sourced and designed for re-use and recycling." In this context, we strongly welcome the resource efficiency

<sup>4</sup> Originally introduced by the Commission in April 2012 during a horizontal Consultation Forum meeting.

<sup>5</sup> Currently, 12W can be found on the market for 55.9cm diagonal [http://www.topten.eu/english/office\\_equipment/computer\\_monitors/22-inch.html](http://www.topten.eu/english/office_equipment/computer_monitors/22-inch.html)

requirements put forward by the Commission on these products, which should be maintained, taking into account the below recommendations.

### Easier accessibility of resource related information

The working document states that the documentation on resource aspects, in particular for recycling at the end of life, shall be made available by manufacturers on '*freely accessible websites*'. This formulation is far too vague. If no standardised format and centralisation process are mentioned, the data will be scattered on a plethora of different websites and provided in many different formats. This will make it impossible for recyclers, experts and market researchers to access and compare the information in a systematic way, which would be a major lost opportunity.

**We suggest that a standardised format for such documentation is elaborated as soon as possible, notably in the perspective of feeding this information into a central product database in the future.**

### Simplified end of life requirements

Concerning the dismantling requirements, we equally think that the verification procedure should not be formulated in such a way that it may act as a barrier for the promotion and acceptability of those requirements. **We suggest that the verification procedure is simplified** towards checking the availability of the documentation and evidence that different materials are not glued, welded or fixed together using systems that cannot be handled with commonly available tools (e.g. no specific or properties screws / fixing features).

Regarding the display of a Mercury free logo, we welcome the idea of improved plastic marking for this hazardous substance. However we question the usefulness, if it does not give clear information for reuse centres and recyclers so that they can process the discarded products without further depollution needs, and enabling a more cost effective end of life process. In that perspective, we would prefer to remove the 25 g threshold for marking plastic parts that contain this substance, and **consider the mercury free logo to be applied only if the whole product is exempted from this substance**. Also the verification of the appropriateness of this logo on products should be simplified (e.g. restricted to a visual check ensuring easy readability).

Moreover, concerning the proposal for a Brominated Fire retardants logo and coupled with the discussion at the consultation forum regarding the complexities of this, **we propose a total ban on the use of brominated and phosphorous based flame retardants in TVs**. Despite the regulatory efforts made in the last years to tackle these chemicals, many flame retardants with known toxic effects and potential to harm human health<sup>6 7</sup> remain in use due to the lengthy, complicated regulatory process. More specifically, the EU's RoHS Directive and the REACH Regulation have banned or restricted only a small fraction of these, making regulatory oversight of these chemicals not sufficient. In addition, RoHS and REACH are applicable only in Europe; other countries often do not have even this minimal level of protection from hazardous flame retardants in electronics enclosures and these substances will make responsible recycling of electronics more expensive and difficult. Finally, the continued lack of a solid evidence base<sup>7 8 9</sup> concerning the alleged risk of TV

<sup>6</sup> EEA (2012), Late lessons from early warnings: science, precaution, innovation,

<http://www.eea.europa.eu/publications/late-lessons-2>

<sup>7</sup> <http://greensciencepolicy.org/wp-content/uploads/2013/11/Case-against-candle-resistant-electronics-2008.pdf>

<sup>8</sup> [http://articles.chicagotribune.com/2012-05-09/business/ct-met-flames-science-20120509\\_1\\_flame-retardants-chemical-industry-toxic-chemicals](http://articles.chicagotribune.com/2012-05-09/business/ct-met-flames-science-20120509_1_flame-retardants-chemical-industry-toxic-chemicals)

<sup>9</sup> <http://greensciencepolicy.org/wp-content/uploads/2014/01/Current-Case-against-Candle-Resistant-TVs-EN-January-10-2014.pdf>

flammability from internal or external sources, coupled with repeated rejections of the majority of related draft standards in the European and international standardisation organisations, further justifies the banning of potentially dangerous brominated and phosphorous based flame retardants in this revised Ecodesign regulation. Should the Commission decide not to take such an approach, we suggest as a fallback option a solution in line with that proposed earlier regarding the use of a mercury free logo.

Also, the recyclability index as presented today is a proposal in the right direction to ensure a minimum recyclability of the plastic parts. Nevertheless, we do not find the associated table appropriate, as it creates complications for measurement and verification procedures, and creates potential loopholes for not listed plastics. We wonder whether **a simpler formula based on a minimum recyclability portion of total plastic content by weight could not work better and simpler.** For making definition of recyclability as clear as possible, we would prefer that the definition is slightly modified in that direction:

- (1) *Recyclability'* means an ability of a product to be recycled at its end-of-life, based on cost-effective practices, **and not requiring any removal of hazardous substances before the recycling process;**

END.

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