



Electronic displays Recommendations on the final Ecodesign and Energy Labelling proposals

November 2018

Ahead of the Member States' vote expected by the end of this year, we would like to support the Ecodesign and Energy Labelling Regulations¹ proposed by the European Commission, and particularly the revised scale with classes A and B empty, the High Dynamic Range (HDR) performance shown in parallel with the standard performance, which gives the right amount of attention to this feature, and the stricter standby requirements. We would like to stress the importance of at least retaining the ambition of the current requirements for energy efficiency in on-mode, including for 4K TVs, and the inclusion of signage displays in scope of these requirements. We have a number of recommendations on how to further improve the text.

Retain ambition of energy efficiency requirements

It is essential that the ambition of the energy efficiency requirements is retained, including for 4K TVs. Historical efficiency improvements of around 7% per year can be expected to continue over the next five years, due to up to 50% improvements in efficiency linked to the introduction of QLED direct emissive displays, improvements in LED light source efficiency and efficacy, improvements in back-lit display control, and advancements in performance and efficiency of TV processors (in line with Moore's law). We strongly recommend that approaches that include adders (referred to in industry proposals as correction factors) for different functionalities are avoided, as these can serve to encourage the unnecessary inclusion of these functionalities in order to gain allowances. Further, they disincentive any efficiency improvements in the addressed functionalities.

Retain ambition on signage displays

It is a priority that requirements on signage displays are retained at the proposed level of ambition. Market research² has shown that these displays are seeing widespread adoption in train stations, shopping malls, and public spaces. Such displays consume on average 40% more energy than comparable consumer TVs and are often operated 24/7. Because of the lack of policy attention in this area, the market for signage displays does not show much diversity on the basis of energy efficiency³. Considering how much power these displays consume (in particular due to the large screen size), rapid action is necessary in order to incentivise energy efficiency improvements. Moreover, not all signage

¹ [Ecodesign & Energy Label](#) draft Regulations notified to the WTO on 9 October 2018

² GfK, European Digital Signage Markets. Presented at EEDAL 2015.

³ DIGITALEUROPE position on the Lot 5 Ecodesign and Energy Labeling regulations notified to the WTO, Brussels, 25 October 2018

displays are switched on all the time and they could be consuming as much as 30-40W in standby mode. Considering their market volume, it is essential to address their standby consumption now.

Remove exemptions

We call on the European institutions to remove several exemptions from the scope:

- **Integrated displays** should be covered with material efficiency requirements: in the previous drafts, electronic displays integrated into other products were made easy to dismantle in order to facilitate the implementation of the WEEE Directive, but their components and materials were also made easy to access, to foster reuse and recycling of parts and materials, which is not the case anymore. We urge the European institutions to reintroduce this provision. We strongly disagree with the ecodesign of these displays being addressed on a product by product basis.
- Despite the inclusion of **signage displays** within the energy label, there are unnecessary exemptions such as the exemption of distributed self-contained signage in an enclosure for permanent outdoor use or “where multiple electronic displays placed on the market are combined in a single system” (Annex III)
- The need for an exemption on electronic displays “**where the main function of the display is status display or control or function activation** is unclear and we suggest removing it to avoid loopholes.
- **Digital photo frames** should be covered with ecodesign material and energy efficiency requirements.

Accelerate implementation of requirements

We regret the one-year delay on all application dates compared to the previous drafts. Everything should be done to respect the Energy Labelling Regulation 2017/1369, which foresees that new labels displayed in shops by end 2019. The proposed delay of 18 months compared to the framework regulation is, in our opinion, unacceptable. Manufacturers do not need to redesign all their products to respect the new regulations and have had considerable advanced notice of the contents of the regulation.

Reinforce the circumvention clause

We strongly support the stipulations in Article 6, in particular the requirement for the power demand of the product not to increase after a software or firmware update when measured with the same test standard originally used for the declaration of conformity. However, the exception that this is allowed with the “explicit consent of the end-user” significantly weakens this requirement. In the [STEP report](#), an increase in energy consumption of 31% to 37% was observed after software updates for three of the seven television models tested. In addition, the current text insufficiently addresses the need to ensure that users are informed of the energy impact of changes in settings.

We suggest the following changes:

The power consumption of the product shall not increase after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with explicit consent of the end-user. Prior to being asked to provide consent, the user shall be notified of a possible increase of energy use and in which circumstance or functionality that increase will occur before starting the update. The user has the right to refuse an update. In the event that the user disables energy saving functionality (either directly or indirectly, for example via a change in picture settings), the user shall be informed of the resultant increase in energy usage, and it shall be possible for them to re-enable this functionality without a factory reset.

Clarify testing conditions

For the on-mode test (Ecodesign Annex II, B), **audio systems** can be disabled, but the stipulation regarding the luminance remaining static has been removed. It is important that the luminance is not changed when the audio system is disabled, or this provides an opportunity for circumvention of the requirements. Therefore, we strongly recommend that separate testing with the audio system enabled and disabled continues to be required and that the following is added to the clause on audio systems:

In the audio-set condition, the peak white luminance shall not change from that measured in normal mode.

Moreover, **peak white luminance** in normal mode was previously specified as “not less than 65% of the peak luminance of the brightest mode on condition.” It is now specified as being not less than 220 cd/m², or not less than 150 cd/m² if *the display is primarily intended for close viewing by a single user* (i.e. a monitor). We are concerned that the definition of “primarily intended for close viewing” could easily be mis-applied, enabling displays to be tested at a lower luminance. This could substantially reduce their measured power. We suggest that either the allowance for reduced peak luminance for displays intended for close viewing is removed, or that a more robust wording is adopted.

Reinforce the Automatic Power down requirements

Improvements are needed to make the Automatic Power down requirements more robust (Ecodesign, Annex II, C.3):

- include a requirement for televisions with various selectable input sources to switch into standby or off mode when no video input signal is detected by any input source
- inform consumers that lengthening the 4-hour setting will have an impact on energy use:
Where the menu of an electronic display provides a function allowing the user to extend the mode transition described above, a warning message about the increase in energy use and a confirmation of the action shall be prompted.

Strongly reinforce provisions on resource efficiency

Limit the use of halogenated flame retardants

We firmly believe that the use of halogenated flame retardants should not be permitted in the enclosure and stand of electronic displays, as proposed in the July 2018 draft from the European Commission. We strongly disagree with the idea that this should be kept for a future discussion. The negative impact of using halogenated flame retardants in televisions and displays does not need to be proven anymore, and it needs to be urgently addressed for the European institutions to be coherent with their Circular Economy and Plastics strategies.

Target non-destructive ease of disassembly, not only ease of dismantling

The provision on design for dismantling should be taken to the next level by targeting non-destructive disassembly thereby allowing easy access to key components for repair, as discussed in the case of domestic appliances. We call on EU decision-makers to respect the European waste hierarchy and pursue the objective to facilitate repair through simpler design. Furthermore, the reference to the WEEE Directive means that key display parts are not being addressed (e.g. PMMA boards and internal power supplies) and neither are display technologies (e.g. OLED). The requirements as worded add very little value in addition to what is already achieved under the WEEE Directive and via the I4R platform.

Ensure unrestricted access to repair and maintenance information

[In a recent study](#), the most commonly cited reason for unsuccessful repair was the lack of information; this was the cause for one out of three failed repairs (32%). The argument that making available such documentation causes IPR and competitiveness concerns cannot be supported because:

- Such “IPR” is not protected: Competitors can physically reverse-engineer products if desired to obtain more information than could be learned from a repair guide.
- Manual disassembly is quite different from assembly IPR: The cases where assembly and disassembly are mirrored e.g. with screws, are straightforward, and information is often not necessary. The areas where disassembly information is necessary are where assembly means such as snap fits and glue are used, and disassembly requires a completely different method, the means of which are unclear.
- Some manufacturers already provide this information: Dell and HP have complete service manuals freely available online.

We are disappointed to note the additional barriers to the availability of repair and maintenance information that have been put in place. While the previous regulatory drafts foresaw access “to independent operators” and “to any repairers”, the information is now restricted to professional repairers covered by a valid liability insurance. We believe that this will create an additional administrative burden for repairers and market surveillance authorities, and limit the access that non-profit repair initiatives such as repair cafés will have to the repair information essential for their operation. We call on the reintroduction of the *unrestricted access to appliance repair and maintenance information to independent operators*, supported by an explanatory section to the definition of “independent operator” as in the Regulation EC715/2007 on the availability of vehicle repair and maintenance information:

‘independent operator’ means an undertaking other than authorised retailer and repairer which is directly or indirectly involved in the repair and maintenance of electronic displays. In particular repairers, manufacturers or distributors of repair equipment, tools or spare parts, publishers of technical information, not-for-profit repair initiatives, operators offering training for repairers.

Furthermore, there is ambiguity in the provision mechanism: the reference to *The manufacturer or importer website, or an equivalent means of information* opens a loophole for manufacturers to make information difficult to access and claim it is “equivalent”.

Reference is made to manufacturers charging reasonable and proportionate fees, where this is defined as: *if it does not discourage access by failing to take into account the extent to which the professional repairer uses it*. This is clearly not defined in a way that it can be consistently assessed by market surveillance authorities. The most reasonable fee for access to this information is no fee at all.

Introduce an ambitious provision on spare parts, software and firmware updates availability

Availability of spare parts and software/firmware updates is a key resource efficiency consideration, and we urge European decision-makers to:

- introduce ambitious provisions foreseeing that all spare parts necessary for repair should be available to retailers, repairers and consumers, during at least the average product lifetime. A maximum delivery time of one week for spare parts should also be introduced, bearing in mind that the “Product 10Y Repairable” label used by the [SEB Group](#) guarantees shipment of spare parts in 24-48 hours.

- introduce a clause foreseeing a minimum duration for the availability of software and firmware updates as was done for servers. The [2016 UBA report](#) on products obsolescence highlighted that the main reason for televisions failing was due to firmware or software problems.

Other points

- Concerning the **label design**, we consider it necessary to comply with the revised Energy Labelling Framework Regulation that the annual energy consumption be shown on the label in a prominent position. We have reservations regarding the proposed External Power Supplies icons in terms of comprehensibility and influence on purchasing decisions. We regret that no icons have been envisaged that could help consumers buy more durable, repairable products, such as the free warranty period offered by the manufacturer or spare parts availability. DG Justice’s [behavioural study on consumers’ engagement in the Circular Economy](#) released last month describes how effective this could be in shifting purchasing decisions towards products with greater durability and repairability.
- **Automatic Brightness Control (ABC) incentive**: we note the larger reduction applied to the on-mode power measurement for the EEI calculation from 10% to 15% (ED Annex II, B.3). While a 10% reduction would be more appropriate considering the variation in ABC performance over different lighting levels, we consider that the stipulations added better specify the performance characteristics of the ABC ensure that the technology saves energy, and we strongly recommend that these are retained. Further, we call on the reintroduction of the previously proposed requirement that digital signage displays with peak white brightness of 1500 cd/m² or more must have ABC enabled as default.
- The **mercury / cadmium labelling** is stated to specifically only apply to those products that have CCFLs or that have cadmium quantum dots. This could potentially create a loophole whereby other products containing these materials are not labelled.
- We support the **information requirement for a dismantling sequence** and diagram of the location of components containing fire retardants and toxic / ecotoxic substances (Annex II Clause E.2). The information relevant for recyclers should be made publicly available, ideally through a product database or through established information platforms for handling Waste from Electric and Electronic Equipment (WEEE).
- Editorial: correct recital 15 of the Ecodesign regulation:

Considering, in addition, that screens with a surface area smaller than or equal to 100 square centimetres have very limited energy use, all THESE electronic displays should be outside the scope of this Regulation both for energy and for requirements contributing to circular economy objectives.

And the omission in ANNEX II C2:

Displays MUST comply with the requirements for standby mode when networked standby mode is disabled.”

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