



Position paper

The consumer take on ecodesign for electronic displays

October 2026

Why it matters to consumers

Every day, millions of consumers turn on their televisions to watch the news, catch a movie, or simply unwind. Over the years, these devices have grown in size, making robust energy efficiency requirements all the more necessary. Repairing televisions should also become more affordable and convenient, so that consumers can use them for longer while reducing their environmental impact.

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Summary

Televisions and other electronic displays account for 10% of total household electricity consumption¹. Many are used for several hours every day, and they are becoming larger while homes and living spaces remain the same. They are also not easy or affordable to repair, which pushes consumers to replace them when they break.

With this context, the European Commission is currently developing a proposal on electronic displays, in the form of a delegated act under the Ecodesign for Sustainable Products Regulation (ESPR). Such regulation allows the European Commission to set product-specific requirements, through both ecodesign and energy labelling rules. It has already delivered substantial improvements for products' sustainability and efficiency, resulting in more durable goods and energy savings for consumers. For instance, European households can save €650 every year on their energy bills thanks to more efficient appliances², while Ecodesign rules have also made smartphones easier to repair and given consumers more information at the point of purchase³.

The European Consumer Organisation (BEUC) agrees that electronic displays are a product group in need of a revision of the current rules that would match the ambition of the ESPR, and welcomes the study team's preliminary evaluation.

The upcoming revision is an opportunity to further improve the sustainability of screens that should not be missed. Longer-lasting products not only benefit consumers, they strengthen the circular economy and help reduce supply chain dependencies on raw materials.

¹ European Commission. (2024, November 13). *Public consultation launched on updating ecodesign and labelling rules for electronic displays*. Directorate-General for Energy. https://energy.ec.europa.eu/news/public-consultation-launched-updating-ecodesign-and-labelling-rules-electronic-displays-2024-11-13_en

² European Consumer Organisation. (2024). *Energy-saving appliances: The silent money maker in consumers' homes*. <https://www.beuc.eu/reports/energy-savings-appliances-silent-money-makers-consumers-homes>

³ European Consumer Organisation. (2026, June 30). *Repairing the market: A cross-European reparability check*. <https://www.beuc.eu/reports/repairing-the-market>

BEUC RECOMMENDATIONS

1 Support for new testing approach of dynamic luminance

2 Refine and strengthen standby requirements

3 Maintain restrictions on halogenated flame retardants (HFRs)

4 Enhance display repairability

5 Include a repair score on the energy label

6 Include a recommended viewing distance on the energy label

7 Ensure software support

8 Balance increasing size with rescaled energy classes

9 Consider reliability requirements

1. Support for new testing approach of dynamic luminance

We support the revision of the testing approach and measurement method based on dynamic luminance, as the brightness of a display is one of the main drivers of energy use. This will allow for a more accurate assessment of real energy consumption, more akin to consumer habits and different types of media.

A clearer differentiation across energy classes will allow consumers to make better-informed choices when purchasing their displays. Increasing thresholds with screen size will also help consumers to better account for the different energy efficiency demand within the same classes.

We further recognise that the approach used for measuring display luminance in the current regulations is not suitable, as it provides too much flexibility for manufacturers to alter luminance levels from their expected real-life usage. We support a review of the configurations required to be tested, recognising that electronic displays can have many different settings. If it is not possible to define a specific configuration, or set of them, we would prefer that all of them are tested.

Additionally, we find that the equation and resulting curve of M2 best encapsulates the different luminance levels, so we favour it over M1.

Recommendations

- **Revise the testing method** to account for dynamic luminance.
- Carefully **review the configurations that will be tested** to avoid potential loopholes.
- **Consider M2 as the efficiency curve** best equipped to capture varying luminance levels and differentiate between displays.

2. Refine and strengthen standby requirements

BEUC supports refining the standby testing approach and requirements, especially for connected devices.

A 2022 study by International Consumer Research and Testing (ICRT) showcased that standby power consumption notably varies across brand models and rarely stays consistently below the required limits⁴. Depending on the brand and installation mode,

⁴ ICRT. (2022, April 19). *Side Story 2022 - 02: Standby power consumption* (Report No. M168254/01).

the ICRT observes television displays a) staying well above the consumption limit from several minutes to several hours after turning to standby mode, b) having various peaks in the following 24 hours in standby mode, most likely due to background processes driven by internet connectivity.

This results in overall higher consumption, inadvertently increasing energy costs for consumers. That is why we support the preliminary measures to refine standby mode power requirements, and we recommend including a dedicated testing approach for this mode's power consumption.

Recommendation

- **Refine standby mode definitions and requirements**, including with a dedicated testing approach for standby mode power consumption to verify compliance.

3. Maintain restrictions on halogenated flame retardants (HFRs)

BEUC believes removing the current restrictions, without other additional measures, is premature. Whether the objective is to increase plastics recycling rates or to address health or environmental concerns, reintroducing HFRs works against both as it will continue to make separation challenging for recyclers, and they are demonstrably hazardous substances⁵.

Allowing HFRs to be reapplied into electronic displays does not tangibly improve market conditions over chemical alternatives already in use. . We suggest that the current restrictions are maintained as a question of regulatory clarity and predictability. The REACH revision and the Circular Economy Act are set to address the ban on chemicals and recycling treatment, respectively, and would constitute more appropriate regulatory vehicles.

Recommendation

- Maintain the **current restrictions on halogenated flame retardants** in electronic displays.

⁵ Shaw, S. (2010). Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks? *Reviews on Environmental Health*, 25(4), 261–305. <https://doi.org/10.1515/reveh.2010.25.4.261>

4. Enhance display repairability

The repairability of a product is essential to extending its lifetime and reducing its environmental impact. It also reduces Europe's global dependencies on virgin raw materials and imports, while favoring local employment.

We agree with the study team's preliminary findings that televisions are often uneconomic to repair, and that consumers currently opt for replacement. However, we disagree with the resulting conclusion that repair measures are not worth pursuing. Consumers are opting for replacement precisely because repair is uneconomic and inconvenient; the draft JRC preparatory study on horizontal repairability requirements underscores how sensitive consumers are to high prices for spare parts and repair services⁶. In a recent survey from BEUC member Consumentenbond, 39% of respondents cited repair being too expensive as the most important reason for not repairing a broken television. Only 17% said that buying a new TV is more attractive than repair⁷.

Policy measures could begin to address this market failure by increasing the incentives of consumers to choose repair over replacement. They could do so by extending the availability period of spare parts, currently at seven years after the last unit placement on the market. The Association of Smart Home Professionals (CEDIA) notes that smart TVs typically last between seven and ten years, depending on the panel type and use⁸. Thus, extending spare part availability to match the typical product lifespan would incentivise more consumers to repair their displays rather than replace them.

The delivery time of spare parts also plays a role in a consumer's decision to choose replacement over repair. Current ecodesign requirements establish a maximum delivery time of 15 working days, which in practice can mean a wait of over three weeks from the moment the order is placed. Long delivery times are yet another disincentive to repair, making replacement the consistently quicker option. Reducing the maximum delivery time to 10 working days would incentivise consumers with a more tolerable waiting window, encouraging them to keep their displays in use for longer.

Lastly, we find a gap in the current ecodesign requirements concerning access to repair and maintenance information. Since the legislation stipulates that manufacturers shall ensure spare parts can be replaced with commonly available tools, restricting repair and maintenance information and most spare parts to professional repairers severely limits the repair possibilities of electronic displays. This gap directly contributes to making

⁶ Spiliotopoulos, C., Naumann, G. and Faraca, G., Preparatory study for the setting of horizontal ecodesign requirements on repairability - Draft version for consultation, Publications Office of the European Union, Luxembourg, JRC144290.

⁷ Consumentenbond (2026, August 11-18). Questionnaire televisions.

⁸ CEDIA. (2025, January 3). How long do smart TVs last? CEDIA Knowledge Hub. <https://cedia.org/homeowners/knowledge/how-long-do-smart-tvs-last/>

repair uneconomic and unattractive. We recommend that repair and maintenance information, and more types of spare parts, be made accessible to end-users to maximise the repair opportunities of displays. Similarly, we also recommend simplifying the registration procedure by reducing the registration window to two working days, and having immediate access to the repair and maintenance information. Five working days only delays repair and further discourages consumers from seeking these services.

Recommendations

- **Increase the spare part availability period** from seven to ten years after the last unit placement on the market, to cover for their expected lifespan.
- **Reduce the maximum delivery time of spare parts** from 15 to 10 working days after receiving the order.
- Advance the **access period of repair and maintenance information to one year** after the placing on the market of the first unit.
- **Include end-users in access to repair and maintenance information** and more spare parts, to maximise repair opportunities.
- **Simplify the registration conditions for professional repairers** by reducing the registration window to 2 working days, granting immediate access to all repair and maintenance information.

5. Include a repair score on the energy label

BEUC supports the addition of a repair index to the energy label, to give consumers a visible and easily comparable tool of a display's repairability at the point of sale. The differentiation of displays on this key aspect has lasting implications for future repair services; a consumer who values repairability will benefit from this transparency by saving considerable cost and time. Similarly, consumers who try partaking in repair before reaching out to professional repairers will have a greater understanding of the likely fasteners and time needed to address future component failures. There is a clear interest from consumers on this: in the same recent survey from Consumentenbond, 73% of respondents said a repair score would be "very important" or "important" to include in the energy label⁹.

⁹ Consumentenbond (2026, August 11-18). Questionnaire televisions.

The EU funded project PROMPT provided independent testing results to [showcase](#) the design aspects influencing product repairability, including for smart TVs¹⁰. The project highlights that the type of fasteners is critical to easing display disassembly, particularly to remove the back cover and access the inside components.

PROMPT underscores a notable spread in the disassembly times between different brand models (e.g., the removal of the back cover can range from 96 to 326 seconds). Furthermore, some brand models require the use of specialised tools or suppliers alongside hands or screwdrivers, making the disassembly both more challenging and time-consuming. All these factors offer differentiation across model sets that will provide more transparency to the consumer.

Recommendation

- **Include a repair score** on the energy label, based on the fasteners type and disassembly time needed to access and remove priority components.

6. Include a recommended viewing distance on the energy label

The current energy label for electronic displays provides useful information to consumers in terms of energy consumption, efficiency, screen diagonal, and other variables. However, it does not give advice on an important decision all consumers must make when purchasing a new electronic display, particularly televisions: how far away to set it from their viewing spot.

As the overall price of displays drops, their size increases¹¹, and living spaces remain the same, consumers will naturally end up with displays larger than necessary and with a higher energy consumption. Research showcases that inadequate viewing distances can cause several symptoms, including eye strain, headaches, blurred vision, dry eyes and neck pain¹². Yet consumers do not have a reliable and comparable signal at the point of purchase to ascertain whether their preferred screen size is suitable for their living space.

A feasible way to address this would be to incorporate a “recommended viewing distance” pictogram in the energy label. This pictogram could represent a couch next to the “visible screen diagonal” pictogram, with an arrow containing information in meters on the ideal distance to the screen. The Dutch consumer organisation

¹¹ Wheatley, M. (2024, August 9). *For European TV buyers, bigger is better*. HDTVTest. <https://www.hdtvtest.co.uk/news/for-european-tv-buyers-bigger-is-better>

¹² Sheedy, J. E., Hayes, J. R., & Engels, J. (2003). *Is all asthenopia the same?* *Ergonomics*, 46(10), 985–1002. DOI: 10.1080/0014013031000138761

Consumentenbond published earlier this year a formula to calculate a recommended viewing distance adjusted to the screen size, providing a guide to consumers to make better-informed decisions. BEUC member Which? has also created a similar tool which can be taken as a basis.

Recommendation

- Consider including a **“recommended viewing distance” pictogram** in the energy label, adjusted by screen size, to give consumers a direct and easy comparison between displays and allow them to make a more informed purchasing decision.

7. Ensure software support

As digital, smart and AI features continue to become mainstream among electronic displays, end-users will increasingly rely on the display’s software for its continued functionality. This is already proving to be an issue: in the [PROMPT project](#), software-related issues constitute 13-20% of all reported defects in Germany, Italy, Spain and the Netherlands. For example, a lack of support can render apps and features faulty or unusable, affecting the user experience despite the electrical components functioning as intended. Functional life through software support is thus as essential to the lifespan of the smart display as its hardware support.

Current ecodesign requirements stipulate a minimum software update availability period of 8 years after the last placement on the market. While we believe this is appropriate, we encourage the study team to consider increasing the availability period to guarantee a longer lifespan for displays that will otherwise become functionally obsolete.

Recommendation

- Increase the **minimum software update availability period to 10 years**, given the increasing lifespan expectancy.

8. Balance increasing size with rescaled energy classes

Market trends showcase that electronic displays are increasing in size, since panel prices are declining and are expected to continue doing so in the coming years. At the same time, it seems consumers do not have a clear awareness of screen size affecting energy classes. In a recent survey by BEUC's Dutch member Consumentenbond, 64% of respondents were not aware that the calculation of the energy class is adapted to the screen size – which can result in larger displays receiving a better grade, despite having a higher absolute consumption¹³.

Taking all the above into account, we believe this calls for a reassessment of energy efficiency classes, in a way that incentivises manufacturers to keep improving the efficiency of displays, while allowing consumers to differentiate between models. This will help consumers make an informed decision at the point of sale, while making the energy label relevant to them.

Recommendation

- **Consider a rescale of energy classes**, prioritising a spread that allows consumers to differentiate between models.
- **Revise the energy label to more clearly indicate the relationship between a screen's size and its energy class.**

9. Consider reliability requirements

While EU regulations have successfully addressed their in-use energy consumption, electronic displays continue to face issues related to functional longevity – the lifespan before an irreversible hardware failure. Despite not being subject to daily impacts as is the case with smartphones, displays face reliability issues that shorten their lifespan and push consumers to discard them. Research points out that thermal stress and overheating significantly contribute to the degradation of electronic devices, for example through their power supply units¹⁴. In the [PROMPT project](#), up to 61% of the reported TVs had a failed screen; together with the mainboard and power supply, these three parts account for over two-thirds of TV breakdowns.

¹³ Consumentenbond (2026, August 11-18). Questionnaire televisions

¹⁴ Kulkarni, C. S., Celaya, J. R., Goebel, K., & Biswas, G. (2012). Physics based electrolytic capacitor degradation models for prognostic studies under thermal overstress. *PHM Society European Conference*, 1(1).
<https://doi.org/10.36001/phme.2012.v1i1.1423>

From a circular economy perspective, prematurely replaced displays represent a waste of resources and a lost opportunity for the repair sector and the consumer. For these reasons, we ask the study team to consider reliability requirements that will enhance the lifespan of this product group by addressing its most common shortcomings.

Recommendation

- **Explore reliability requirements** to address thermal stress and extend the lifespan of electronic displays.