

# Ecodesign and energy labelling of refrigerators, dishwashers, washing machines, televisions, computers and lamps (including the rescaling of the energy labels for those products)

Fields marked with \* are mandatory.

## **Public consultation on ecodesign and energy labelling of refrigerators, dishwashers, washing machines, televisions, computers and lamps**

The European Union has set ecodesign and energy labelling requirements for refrigerators, dishwashers, washing machines and washer-dryers, televisions, computers and electric lamps and luminaires which apply in all the Member States, thus creating a level playing field for manufacturers and allowing consumers to compare products across the Union (see the [Europa webpage](#) for more detailed information about these, and other, requirements).

In the context of the ongoing reviews of these requirements, the Commission is looking for the views and comments from individuals and organisations with an interest in those measures. Responses are particularly welcome from members of the general public, public authorities, businesses, and other non-governmental organisations.

This public consultation takes place following an extensive series of technical consultations with industry, Member State experts, and other organisations, as well as the publication of preparatory studies. The results of these studies in full can be found here: for [household dishwashers](#), for [household washing machines and washer-dryers](#), for [computers](#), for [lighting products](#) and for [household refrigerating appliances](#).

The results of the present consultation will be used to support the revision of the ecodesign and energy label regulations for these product groups.

Please note that you can skip those questions about which you do not feel comfortable or feel that you do not have sufficient information. Please note that replies to questions marked with an asterisk are compulsory for you to be able to respond to the other questions. You can also pause at any time and continue later. Once you have submitted your answers, you will be able to download a copy of your completed questionnaire and upload a written contribution if you wish.

Related links:

- 1) [Ecodesign Framework Directive](#) (2009/125/EC) - [List of ecodesign measures](#)
- 2) [Regulation Framework for Energy Labelling](#) (EU) 2017/1369 - [List of energy labelling measures](#)

### **PART 1: Information about the respondent**

The questions in this section are meant to collect general information about the identity of each respondent.

\* Please provide your full name:

\* Please provide your email address in case we need to follow up with you about your reply\*. If you do not have an email address, please write "Not available".

\* You are replying as/on behalf of:

- A citizen/consumer
- A Member State government
- A Member State regional or local government authority
- A market surveillance authority
- A non-governmental organisation representing societal interests (for example, environmental or consumer interests)
- A company or a business organisation
- Other:

\* Please state:

\* Please specify:

- A business, manufacturing or involved in the trading of products covered by ecodesign or energy labelling measures
- A business selling products covered by ecodesign or energy labelling measures to end-users
- A business repairing products covered by ecodesign or energy labelling measures
- An organisation representing industry views

\* Please provide the name of your company/organisation:

\* What size is your company?

- micro (self-employed)
- micro (1-9 employees)
- small (10-49 employees)
- medium-sized (50-249 employees)
- large (250 employees or more)

\* Which of the following activities are performed by your company?

*at least 1 choice(s)*

- Manufacturing of final product group
- Manufacturing of components for the product group
- Product installation
- Product repair
- Product retailer
- Product collection, disassembly, and recycling (or related activities)
- Product rental
- Services and associated activities
- Other activities related to the use of the appliances
- None of the above

\* Is your organisation registered with the EU Transparency Register? If not, you may do so here. Registration is not compulsory to complete this questionnaire.

- Yes (please provide your registration number):
- No
- Not applicable

\* Please provide your EU Transparency Register number:

\* Please select your country of residence:

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania

- Slovak Republic
- Slovenia
- Spain
- Sweden
- United Kingdom
- Non EU

\* Please specify:

\* Do you consent to the Commission publishing your replies? *Note that, whatever the option chosen, your answers may be subject to a request for public access to documents under [Regulation \(EC\) N°1049/2001](#).*

**Note: respondents who select the option "only anonymously" should not include personal data in documents submitted in the context of the consultation.**

- Yes** *(I consent to the publication of all information in my contribution in whole or in part, including my name or my organisation's name, and I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent publication).*
- Only anonymously** *(I consent to the publication of any information in my contribution in whole or in part (which may include quotes or opinions I express) provided that I remain anonymous. I declare that nothing within my response is unlawful or would infringe the rights of any third party in a manner that would prevent publication).*

## **PART 2: General background information**

This section asks general questions that are aimed at EU citizens and stakeholders with no particular specialised knowledge of ecodesign and energy labelling regulations.

\* Is your professional activity related to products covered by ecodesign and energy labelling regulations?

- Yes
- No

\* Are you (or your members) aware of the ecodesign requirements for one or more of the product groups subject to this questionnaire?

- Yes
- No

\* Please specify for which product groups:

\* Are you (or your members) aware of the energy label for one or more of the product groups subject to this questionnaire?

- Yes
- No

\* Please specify for which product groups:

In your opinion, does the EU energy label help you (or your members) when deciding which product to buy?

- Yes
- No
- Don't know or no opinion

Should there be ecodesign requirements on reparability and durability for energy related products?

- Yes
- No
- Don't know or no opinion

Should the energy label include information/symbols on reparability and durability?

- Yes
- No
- Don't know or no opinion

In relation to reparability, upgradeability and durability (overall referred to as "resource efficiency") how important are the following criteria? Please rate the level of importance for each criterion

	not important	somewhat important	important	very important	Don't know or no opinion
Accessibility of components	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of spare parts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delivery time for spare parts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complete manual for reparability and maintenance with diagrams and list of spare parts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify:

*200 character(s) maximum*

If you needed additional technical information about a product, where would you look?

*at least 1 choice(s)*

- Manufacturer's website
- Retailer's website
- Product information sheet
- Booklet of instructions

- User forums on the internet
- Consumer organisations
- Don't know or no opinion
- Other

Please specify:

*200 character(s) maximum*

### **PART 3: Questions for SMEs only**

This section is addressed to individuals who own or work in a SME in the relevant product sectors.  
[appears only subject to answers to question 5 above]

\* What are the main markets on which your company is active?

*at least 1 choice(s)*

- Your national market
- The EU market
- Markets outside the EU

\* Are you aware of the ecodesign and energy label requirements applicable to the product groups you are involved in?

- Yes
- No
- Don't know or no opinion

\* Which of the following activities does your company perform?

*at least 1 choice(s)*

- Final product assembly (i.e. manufacturing of the final product using components manufactured in-house or by suppliers)
- Manufacturing of specific components used within the products, e.g. motors, filters, plastic parts, etc.
- Retailing of appliances or spare parts
- Selling of second-hand appliances
- Product installation
- Repair of appliances
- Rental/leasing of appliances
- Other

\* Please specify:

*200 character(s) maximum*

\* How would revised ecodesign and energy labelling regulations covering resource efficiency requirements impact SMEs, in comparison to large companies in your sector?

at least 1 choice(s)

- SMEs would be positively impacted compared to large companies
- SMEs and large companies would both be positively impacted
- SMEs and large companies would both be adversely impacted
- SMEs would be negatively impacted compared to large companies
- Don't know or no opinion

\* Please explain:

200 character(s) maximum

### **PART 4: Technical background information**

This section asks more specific questions on the technical aspects of Ecodesign and Energy Labelling requirements for the product groups under consideration.

#### **A. Refrigerators**

#### **B. Dishwashers**

#### **C. Washing machines and washer-dryers**

#### **D. Electric lamps**

#### **E. Electronic displays (computer monitors and televisions)**

#### **F. Computers**

#### **A. This section asks specific questions on household refrigerators and freezers**

Should wine storage appliances be covered by the definition of a household refrigerating appliance or should they be a separate class?

- Yes, they should be covered by the definition of a household refrigerating appliance
- No, they should be a separate class
- Don't know or no opinion

Should low noise refrigerating appliance be covered by the definition of a household refrigerating appliance or should they be a separate class?

- Yes, they should be covered by the definition of a household refrigerating appliance
- No, they should be a separate class
- Don't know or no opinion

Should different types of appliances be treated differently in the energy efficiency calculations?

	Yes	Yes for ecodesign, No for energy label	No for ecodesign, Yes for energy label	No	Don't know or no opinion
Appliances with different defrost technologies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appliances that are built-in versus standalone?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appliances that combine different compartments (e.g. a fridge – freezer combination)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appliances that help prevent foodwaste versus normal appliances?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Should refrigerating appliances with a glass door (for example, mini-bars and wine storage appliances) be in the scope of the regulation for household fridges or in the scope of a separate regulation for commercial refrigerating appliances?

- They should be in the scope of the regulation for household fridges
- They should be in the scope of the regulation for commercial refrigerating appliances
- Don't know or no opinion

## B. This section asks specific questions on household dishwashers

Did you know that minimum cleaning performance requirements exist for dishwashers and that pre-rinsing dishes is therefore not necessary?

- Yes
- No
- Don't know or no opinion

Do you know that longer dishwashing programmes tend to use less energy than shorter programmes?

- Yes, I am already aware
- No, I am not aware
- Don't know or no opinion

Should information regarding the combination of time and energy consumption be made available to end-users?

- Yes
- No
- Don't know or no opinion

If your dishwasher broke down, what would you need to have it repaired?

	not important	somewhat important	important	very important	Don't know or no opinion
A warranty (guarantee)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A list of certified repairers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quick repair time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spare parts and instructions so I could repair it myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Detailed quotation for a complete repair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A post-repair warranty (guarantee) – if the product's original warranty has expired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify:

*200 character(s) maximum*

How long would you expect spare parts to be available for your dishwasher?

- 2 years or less
- Between 2 and 5 years
- Between 5 and 10 years
- More than 10 years
- Don't know or no opinion

In order to evaluate product performance, how important are the following testing programme characteristics?

Please rate the importance that you would give to including the following programme:

	not important	somewhat important	important	very important	Don't know or no opinion
Most frequently-used programmes (e.g. Eco-programme, normal programme, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most energy intensive programmes (e.g. pots and pans, heavy-duty cycles, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low power modes (e.g. left-on mode, left-off mode or delayed start mode)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Programme duration (for all programmes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If the parameters listed below were included in the EU Energy Label on household dishwashers, which ones would you find useful? Tick all that apply:

*at least 1 choice(s)*

- Capacity (amount of plates, glasses, etc.)
- Energy efficiency
- Energy consumption
- Water consumption
- Combined cleaning and drying performance

- Noise emissions
- Don't know or no opinion
- Other:

Please specify:

*200 character(s) maximum*

**C. This section asks specific questions on household washing machines and washer-dryers**

Do you know that longer programmes tend to have higher energy savings?

- Yes, I am already aware
- No, I am not aware
- Don't know or no opinion

Should information regarding the combination of time and energy consumption be included in the EU Energy Label?

- Yes
- No
- Don't know or no opinion

Should information regarding the combination of time and energy consumption be made more clearly visible on the household washing machines and the washer-dryers?

- Yes
- No
- Don't know or no opinion

If your household washing machine or washer-dryer broke down, what would you need to have it repaired?

	not important	somewhat important	important	very important	Don't know or no opinion
A warranty (guarantee)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A list of certified repairers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quick repair time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spare parts and instructions so I could repair it myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Detailed quotation for a complete repair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A post-repair warranty (guarantee) – if the product's original warranty has expired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Please specify:

*200 character(s) maximum*

How long would you expect spare parts to be available for your household washing machine or washer-dryer?

- 2 years or less
- Between 2 and 5 years
- Between 5 and 10 years
- More than 10 years
- Don't know or no opinion

In order to evaluate product performance, how important are the following testing programme characteristics?

Please rate the importance that you would give to the following characteristics:

	not important	somewhat important	important	very important	Don't know or no opinion
Most frequently-used programmes (e.g. cotton 40oC programme, cold programme, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most energy-intensive programmes (e.g. cotton 90oC programme, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low power modes (e.g. left-on mode, left-off mode or delayed start mode)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Programme duration (for all programmes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If the criteria listed below were to be included in the EU Energy Label, which of the following criteria would you find useful?

*at least 1 choice(s)*

- Energy efficiency
- Energy consumption
- Water consumption
- Capacity
- Washing performance
- Noise
- Spin-cycle efficiency
- Don't know or no opinion
- Other:

Please specify:

**D. This section asks specific questions on electric lamps and luminaires**

Should the ecodesign requirements be updated to take into account emerging high-efficient technologies, notably LEDs?

- Yes
- No
- Don't know or no opinion

Should the ecodesign requirements take into account visual effects such as flicker?

- Yes
- No
- Don't know or no opinion

Are you in favour of products containing a light source that cannot be removed or replaced (e.g. a sealed luminaire)?

- Yes, I like them. In this way I can buy frequently a new luminaire and change the appearance in my room
- Yes, but only when they are cheap
- No, I want to be able to change or replace the light source (e.g. the light bulb)
- Don't know or no opinion

The label on luminaires should:

- Be kept as it is today
- Be replaced by a label that concerns only the light source which is contained in the luminaire
- Be discontinued
- Don't know or no opinion

What information would you like to have when you buy a lamp/light bulb:

	Yes	No	Don't know or no opinion
Quantity of light provided by the lamp (expressed in Lumen)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy efficiency expressed in terms of lumen per watt?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Warm/cold effect of LEDs?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Life-time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watt equivalence with old bulbs (incandescents)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If it is tested for flickering?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify:

200 character(s) maximum

**E. This section asks specific questions on electronic displays (computer monitors and televisions)**

A new standard for improving image quality is HDR (High Dynamic Range). A display may even double its power use when displaying content filmed and broadcast in HDR. Would the indication of the power consumption in HDR mode be a relevant information for your purchase choice?

- Yes, I want a clear indication of it and distinct from power consumption in normal mode
- No, I find confusing too many values indicated
- Don't know or no opinion

The current energy label for televisions indicates the "annual" energy consumption of the television. What assumptions should be used if the same indication will be provided in the new label (for televisions, computer monitors or other displays)?

- An indication would not make sense, given that usage patterns differ too much
- 4 hours on, 7 days a week
- 8 hours on, 5 days a week
- 10 hours on, 7 days a week
- Other:

Please specify:

200 character(s) maximum

One of the components more likely to fail in electronic products is the power supply (e.g. because of electric surges). Would you prefer a display with a standardised external power supply (as a USB with type-C connector) that you could easily buy and replace yourself?

- Yes, I would prefer a display with such a feature and using a charger that I have or buy separately
- No, such a feature would be irrelevant in my purchase decision
- Don't know or no opinion

What information would you like to have clearly provided when you buy an electronic display (television, computer display or similar)?

	not important	somewhat important	important	very important	Don't know or no opinion
Measured average power used when "on" in normal mode (Watt)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measured average power used when "on" in HDR mode (Watt)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Diagonal size (cm/inches)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resolution (horizontal x vertical) in pixels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nickname of the resolution level (e.g. UHD, WQHD, ...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The power supply is external and standardised (e.g. USB Type-C)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence of a TV tuner (i.e. to distinguish a TV from another display)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence of a processor (i.e. to distinguish a smart TV)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Network interfaces (i.e. WiFi, RJ45, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**F. This section asks specific questions on computers**

Would information about the energy efficiency of a computer be a useful indicator to help determine your purchase choice?

- Yes, it would help to easily compare different models
- No
- Don't know or no opinion

Would a "smart function", to help improve the battery durability in a laptop, be relevant to you?

- Yes, it would be useful to limit the charge level when keeping the device regularly connected to the mains
- No, I always want the battery fully charged
- Don't know or no opinion

in your purchase choice of a computer is the expandability relevant ?

	Crucial	Important	No, if it compromises lightness, sturdiness or other features	Don't know or no opinion
Main memory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storage (hard disk, SSD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your purchase choice of a computer, how important is:

	Important	Not crucial for my choice	No, unless this feature comes at no extra cost	Don't know or no opinion

battery durability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a standard external power supply (as a USB with type-C connector) for various electronic devices and keep it when replacing the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sturdiness (e.g. resistance to shocks and falling on the ground)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
waterproofness (i.e. damage from a drink reversed on the laptop is limited to the keyboard)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a "reset to factory settings" function, physically and securely erasing any personal data (to donate or resell the device)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Further comments. Are there further comments you would like to make on anything that is not covered above?

*3000 character(s) maximum*