



COMMENTS ON REGULATIONS REGARDING THE ENERGY LABELLING OF LOCAL SPACE HEATERS, AIR CONDITIONERS, AND COMFORT FANS

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A common energy label for room heaters, room air conditioners, comfort fans, and electric heaters – the right step

The European Commission proposes gathering all heating and cooling appliances with the same main local functionality under one single energy label. The scope of a new Regulation will include local space heaters and air conditioners (previously under two separate regulations), along with comfort fans and electric heaters, which will be regulated by the EU for the first time.

This is the right step. A common label will effectively guide consumers to the most energy-efficient appliances and steer the market toward technology development, unlocking the highest energy and GHG savings for these product categories.

A CORNERSTONE FOR HEATING AND COOLING DECARBONISATION

We welcome the revision of Regulation (2015/1186) regarding the energy labelling of local space heaters and Regulation (2011/626) regarding the energy labelling of air conditioners and comfort fans. The current [proposal](#) is a cornerstone in the decarbonisation process for heating and cooling in EU buildings. The European Commission is proposing a new scope, merging several room appliances into one energy label, including local space heaters, air conditioners, and electric joule room heaters.

The change in the scope of regulations constitutes an opportunity that we fully support. These appliances fulfil the same function: heating and cooling rooms. Merging them aligns with the spirit of energy labelling regulations, which intend to create single product categories for appliances serving the same purpose, seeking to help consumers compare the different options available on the market. In fact, a European Commission consumer survey showed that almost half of consumers consider several technologies before choosing a local heater. This also includes consumers facing an important choice: buy an electric heater or a heat pump. In those cases, 38% of electric heater buyers considered first a heat pump but eventually chose the electric heating technology, even though it is much more inefficient.

Finally, we welcome the long-awaited inclusion of **electric joule room heaters** in the scope of energy labelling regulations. We have been calling for such inclusion for a long time. Electric joule room heaters represent [more than 70% of the sales volume](#) of the local space heaters product group, even if they are highly inefficient appliances compared to other alternatives available on the market.

LOCAL SPACE HEATERS: BIOMASS FACTOR AND SCOPE

CLEARING AN UNFAIR BONUS

Currently, heating appliances running on biomass are granted a bonus on their energy labels (until now, under the Regulation for local space heaters). The new proposal includes abolishing this biomass label factor of 1.45. We agree with this. Today, this bonus gives the wrong impression to consumers that solid fuel heaters for biomass are better than other heaters, even though, in truth, they are [an important contributor to air and climate pollutant emissions](#). Additionally, the environmental footprint of solid biomass heaters is comparable to other heating appliances in general, given the local pollution they cause and [the ongoing EU imports of some types of biomass for energy](#) with high environmental impacts.

Moreover, specifically for solid fuel heaters, the proposal requires that estimated particle emission levels be shown on the label. We agree that this information should be provided to consumers and to authorities permitting the installation of such appliances.

FOR WIDER IMPACT, WE NEED A LARGER SCOPE FOR LOCAL SPACE HEATERS

The proposal includes a reduction of the scope to 12 kW for all local space heaters, from up to 50 kW for some heaters. ECOS considers that the proposed limit excludes a large number of local appliances from the energy label. We propose increasing the scope to larger heaters, ideally up to 50 kW.

ENERGY LABEL CLASSES AND ICONS

The proposal includes an empty A-class. It is the correct approach: the A-class should be empty to allow for technological developments. Further below in the scale, the Commission proposes the following class allocation: heat pumps can be placed across 6 different energy classes; solid and gas heating would be allocated to the lowest 3 classes; oil heating is given the lowest 1-2 classes; and electric (joule) heating appliances are always rated G, because of their low efficiency.

CLEAR INDICATIONS TO CONSUMERS

The proposal requires that efficiency values are clearly indicated. This is important additional information for consumers, especially because some label classes are relatively wide (differences in efficiency within a category might be significant). With this clear indication, conscious consumers get the detailed information they demand, further steering them away from the lowest efficiency classes (E-F-G). Most consumers can compare energy consumption numbers, but figures must be clearly indicated on the label, as correctly proposed in the Working Document.

However, the label could be improved. The proposed label will indicate each product type's maximum and minimum energy consumption values, linked with an upward arrow. We do not find this useful as it will make the label more difficult to understand.

Finally, regarding heat pump labels, we propose clarifying whether the indicated power values refer to electric power demand or delivered heat power. We suggest showing both values on the label, side by side, with an icon for electricity and an icon for heat, respectively.

HARMONISING THE ICONS ON THE LABEL

In Paragraph 16.5 of the Working Document, the Commission proposes that a flame icon is included on the energy label of room heat pumps (for heating only). We believe such an icon is unnecessary because the appliance has only one operation mode – it can be used only for heating.

Following the same logic, the proposed snowflake icon is irrelevant on energy labels for room air conditioners (for cooling only), cited in Paragraph 16.7.

COMFORT FANS

We propose a wide revision of the energy classes for comfort fans, since most of the products already in the market would be labelled as 'A'. The thresholds for the energy classes should be brought significantly up to ensure an empty 'A' class, pushing technological development among manufacturers. To inform consumers, also power or annual energy consumption should be shown on the energy label.

As rightly proposed, energy consumption should be calculated according to the service value - based on the m³/min/W parameter - not just considering the appliance diameter.

ADDITIONAL COMMENTS

- ▶ Sound power: The current proposal includes 5 classes for indoor and outdoor equipment (from A to E). We agree with this idea and find it useful for consumers, but class limits should be lowered. For

equipment below 12 kW at rated conditions, we propose ecodesign limits be set at 63 dB(A) for outdoor units and 60 dB(A) for indoor units. If such limits are adopted at a later ecodesign revision, we propose an A-class limit of 48 dB(A) for outdoor units. In that case, there would be no use for the proposed E-class with outdoor sound power above 67 dB(A) and indoor sound power above 60 dB(A).

- ▶ Cooling power: Specifically for air-conditioners, we find it important that labels include information about cooling power and room size as proposed. Consumers often ask for the latter, which is seen as a tangible indicator.
- ▶ Multi-operation appliances: For equipment with multiple operation modes, it is proposed that labels show information relating only to the least efficient mode. Specifically for heat pumps and air-conditioners that can operate both in single duct and double duct modes, we propose to have two labels, allowing the consumer to see the efficiency in both modes. This will offer better information to consumers than just showing the efficiency of the least efficient mode.
- ▶ Seasonal efficiency formula: The formula for seasonal efficiency, Equation 1 in the working document, proposes to reduce nominal efficiency by 10% relative, instead of 10% absolute, before adding corrective factors, making controls more important for heat pumps than for electric heaters. ECOS believes it is a mistake to reduce dependency on controls for electric heating. Thus, we propose to reduce nominal efficiency values to 80% (currently at 90%) and make control factors worth 20% in the formula (currently at 10%).
- ▶ Air-conditioner capacity: For single duct and double duct air-conditioners, capacity (P_{ratedc} , kW) is calculated based on an outdoor temperature of 27°C, while for split units, it is calculated for 35°C. We do not see a good reason for this difference. It will misguide consumers into believing they would have a larger capacity with ducted units than with split units.
- ▶ Refrigerants: Many air-conditioners and heat pumps still include high amounts of GWP refrigerants. Ecodesign and energy labelling should be used as a complementary measure to the F-gas Regulation, phasing down fluorinated refrigerants. At the very least, energy labels should include a pictogram informing consumers if the climate impact of the refrigerant is low ($GWP < 5$), mid ($5 < GWP < 150$) or high ($GWP > 150$). In addition, a malus scheme for mid and high GWP refrigerants should be introduced on the energy efficiency index, giving further incentives for consumers to purchase products with lower climate impact, and for manufacturers to produce and market them.
- ▶ Electric power demand: for reversible appliances, as mentioned in Paragraph 16.6, electric power demand is not a parameter needed on the label, as currently proposed; specifically for the cooling application, there is an additional indication of space on the label that can potentially mislead consumers into buying bigger appliances for bigger rooms. ECOS recommend dismissing the requirement of adding room size information.
- ▶ Timeframe for power calculations: For 'thermostat off' and 'standby' modes, the time frames considered in the calculation of power demand are rather short. We propose that both parameters be tracked for longer, assuming that many users will not turn the equipment off daily.

- ▶ QR code: The Commission proposes that relevant information on the energy label should be communicated to consumers via QR code, linking to a website created by the supplier. This site would potentially include information beyond what the European Product Registry on Energy Labelling (EPREL) database can disclose, such as use and maintenance instructions, reparation and technical datasheet information. In addition, information should be provided in the language of the country where the appliance is sold. ECOS considers this to be a key aspect. The information provided should also include and link to the product's entry in EPREL. Additionally, the QR code should be permanently embodied in the product.

- ▶ Tolerances: Some tolerances are missing for verification in the proposed Annex IX, e.g. for the sound power level, and need to be determined in the Regulation to enable market surveillance verification. Currently, the tolerance is set up to 8%. We consider it more precise to decrease the current requirement to a lower value, e.g. 6%.

- ▶ Control factors: We welcome the inclusion of controls for all local space heaters and coolers as described in Table 30 in the current draft for a joint (merged) label. However, we have a few comments and suggestions regarding the proposed effects of controls on heating and cooling efficiency:
 - In general, a difference of 10% in the realised efficiency with controls is unrealistically low. We propose to increase it to 20%.
 - Modulating heat output has a value above a (two) step heat output regulation. We support that as it will give an efficiency gain ($F_{corr} = 10\%$) for all heaters and coolers.
 - Thermostats are important in control systems, and they should provide considerable gains (F_{corr} equals +20%), but only if they have a low hysteresis, as 1°C or lower. On the other hand, for electrically powered heaters and coolers, thermostats should be mandatory with ecodesign regulation and therefore not give any extra gains.
 - Unless very good information is available, we propose that the gain for black bulb sensors is removed or reduced (to F_{corr} equals +10%), and documentation for the high-efficiency gain of black bulb sensors over other temperature sensors is needed. Moreover, a bonus would be granted to black bulb sensors only if they are used as sensors for thermostats.
 - The efficiency gain for the distance control should be included as it is already the case for ecodesign (we propose $F_{corr} = 10\%$). However, for electrically powered heaters and coolers, this should happen only if the control is possible remotely.
 - For comfort fans, we do not find that multiple steps, often just two steps, are more important than the other control options, so we propose that all four relevant control options are given equal weight ($F_{corr} = 25\%$)

Lastly, ECOS backed the EPEE proposals, requesting to change the measure of heat delivered from P_{rated} to P_{design} for heat pumps, which is more accurate to use in the calculations because of its closeness with real-life usage of the appliance, avoiding considering the backup heater.

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