CONSUMER ORGANISATIONS COMMENTS ON ECODESIGN AND ENERGY LABELLING FOR DISHWASHERS

European Commission’s draft legislative proposal of November 2017

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Why it matters to consumers

Thanks to EU rules, consumers save on energy when using their ever-more efficient and quiet dishwasher. The Energy label also informs them about the machine’s capacity for instance. However, both the Ecodesign and Energy label measures need an update to ensure consumers benefit from greater energy savings and better information.

Summary

Dishwashers are covered at EU level by both Ecodesign requirements and Energy labelling under Commission regulation (EU) No 1016/2010 and Commission Delegated Regulation (EU) No 1059/2010, respectively. We welcome that the European Commission is now reviewing these requirements to reflect technological developments. In this paper, ANEC and BEUC give recommendations pertaining to the draft legislative proposals circulated in November 2017.

In general, we do not agree that an unjustified advantage is provided to larger dishwashers, and we ask the Commission to modify the calculations accordingly.

Regarding the Ecodesign draft proposal, we believe that low power modes must be better covered, ideally at horizontal level. We also call on the Commission to integrate a requirement to reduce the noise level of dishwashers and we advise against the program time to be displayed on the label. We welcome the information requirements and provide recommendations to improve them.

We strongly support the proposals put forward by the European Commission on resource efficiency and we propose ways of improving them. For example, the maximum delivery time of spare parts should be reduced to 1 week. In addition, requirements on durability as well as on upgradability (availability of software updates) should be included.

Regarding the Energy label, we believe it must be based on more than one program. We welcome the proposal to replace the weighted annual energy consumption (kWh/annum) currently displayed on the label with a clearer unit for consumers. Additionally we provide recommendations on the noise pictogram as well as on the one for distance selling and other types of advertisements.

Finally, we call for all the pictograms on the Energy label to be straightforward and tested upfront amongst consumers.
1. **GENERAL COMMENTS**

1.1. **The trend towards promoting bigger machines should be stopped**

The proposed formula of the Energy Efficiency Index (EEI)\(^{1}\) – which is used to both determine the energy efficiency class of dishwashers and the Ecodesign requirements – differentiate between smaller (place settings ≤ 10) and bigger appliances (place settings ≥ 11). It provides an unjustified advantage to bigger dishwashers compared to smaller ones. For example, a 10-place setting dishwasher with an average energy consumption of 0.85 kWh/cycle, will reach an EEI=53 (current class A++) with the formula for larger appliances, whereas with the formula for smaller appliances, it will score EEI = 63 (current class A+). We disagree with such approach as consumers must be informed in a transparent way about the fact that larger appliances consume more.

**see ED Annex II: Measurements**

- Apply the same SCEC formula for all rated capacities of dishwashers.
- Keep the formula \( y = mx + c \) as it means that the allowed specific CEC per place setting gets stricter the more place settings the dishwasher has.
- Maintain the change from ‘per annum’\(^2\) to ‘per cycle’ as it is in line with consumer expectation, i.e. information on consumption is preferred on a per cycle basis\(^3\).

1.2. **Consumer behaviour to be further assessed in the future**

The preparatory study for dishwashers (JRC IPTS 2017) revealed that beside technical innovations, user behaviour\(^4\) influences the overall impact on the environment during the use phase. As consumer behaviour related to dishwasher can change in the future, there is a need to further analyse consumer behaviour when Ecodesign and Energy Labelling rules are under review.

**Include consumer behaviour analysis in the revision clause of both the ED and EL regulations (Article 8).**

1.3. **Automatic dishwasher versus handwashing: clarification needed**

The European Commission proposes to inform consumers in the booklet of instructions that automatic dishwashers consume less energy and water than hand dishwashing\(^5\). Although it is a great evolution in the Ecodesign history that automatic dishwashing usually\(^6\) comes at a lower energy and water consumption compared to hand dishwashing, the potential savings are limited to the use phase. In our view, it is unclear how much the potential water and energy savings achieved during the use phase can compensate for the purchase

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\(^{1}\) The Energy Efficiency Index (EEI) is calculated as follows:

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EEI = \frac{CEC}{SCEC} \times 100,
\]

with CEC = ECO Cycle Energy Consumption of the household dishwasher; SCEC = Standard Cycle Energy Consumption of the household dishwasher.

\(^{2}\) The current regulation the EEI is calculated from the annual energy consumption based on 280 average dishwashing cycles per year.

\(^{3}\) According to the EU consumer survey 2015 on dishwashing behaviour this change is in line with consumer expectations regarding the information on a revised label for dishwashers. The indication of energy and water consumption is clearly preferred on a cycle basis.

\(^{4}\) Underloading and minor use of the ECO programme.

\(^{5}\) As backed up by Richter, C. (2010b). In-house Consumer Study on Dishwashing Habits in Four European Countries: Saving Potentials in Households with Dishwashing machine, last accessed on 30 Apr 2015.

\(^{6}\) E.g. When using the appropriate cycles and only running the machine when it's full.
price of the appliance and what the payback period is, if existing at all. While it can be envisaged that a dishwasher performs better than handwashing from e.g. a hygiene perspective, handwashing remains efficient for smaller quantities of dishware. On the other hand, a rebound effect can be expected from the use of automatic dishwashers, with consumers being more prone to use more dishware. In fact, when encouraging users to increase the use of dishwashers through an information requirement, the aging of the appliance might increase too, and issues of premature obsolescence should not be omitted. We therefore do not support the European Commission’s proposal to insert an information requirement on this issue, unless it is heavily modified as proposed below:

- **Modify the information requirement as follows:** “information that automatic dishwashing usually consume less energy and water in the use phase than hand dishwashing when the dishwasher is used according to the booklet of instructions, including using the appropriate cycles, only running the machine when it’s full and avoiding pre-rinsing” (Annex I, 3 (e)).
- **Complement this information with 1)** a comparative table including data about energy and water consumption of the appliance in different programs compared to handwashing 2)** explanation that such potential savings are only related to the use phase, and as such do neither ensure the pay back of the appliance in the long term nor cover the accelerated aging of the appliance in case of increased use.

2. **ECODESIGN**

2.1. **Low power modes requirements must be covered**

The European Commission proposes to remove household dishwashers from the scope of the current horizontal regulation on standby EU 1275/2008 (currently being revised) and to deal with the power consumption of the low power modes in this product specific Ecodesign regulation instead. However, such approach means that other requirements of 1275/2008 would not apply to dishwashers, such as general information requirements, or specific requirements like the mandatory possibility of deactivating wireless network connection(s). Moreover, as in the future more and more washing machines that are not connected to the home network today might be connected in the future so that ‘smart’ washing machines can participate in demand-side management schemes, this change is not appropriate.

- **Keep household dishwashers in the scope of the (revised) EU regulation 1275/2008 and 801/2013 to ensure that all requirements (i.e. beyond maximum values for power consumption) on standby and networked standby are applied to this product group.**
- **Add the product specific definitions for “Delayed start” and “Left-on” mode for household dishwashers into the revised regulation 1275/2008, including requirements on their power consumption, related to the limit values for standby mode(s).**

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7 On the latter, the consumer survey 2015 revealed that 31% of consumers answered, “each item is usually pre-rinsed under the tap”.
8 Currently the requirements of regulation 1275/2008 with regard to power consumption of standby only apply to the off-mode of washing machines and washer-dryers, but not to the delayed start and left-on mode.
For standby, add a maximum period of time of 20 minutes for the power management function into the requirements of the revised 1275/2008 (so far only realized for networked standby).  

2.2. Program time should not be displayed on the label  

In general, we agree that too long time programs must be avoided as they are otherwise not used even though they may have benefits for the environment and bring cost savings for consumers. However, the case of dishwashers is very different from the one of washing machines. Firstly, dishwashers technically need to run longer than washing machines in order to use the heat better. Secondly, consumers acceptance of longer program is much higher for dishwashers than for washing machines.  

We do not support the display of time duration on the label. A recent consumer survey highlights that the comprehensibility of the time duration indicated on the Energy label for washing machines is low. According to the authors, it is expected that these results can also be applicable to household dishwashers. Rather, consumers must be further informed that the ECO program is the most efficient.  

Do not display the time on the label.  

2.3. Noise level must be reduced  

The proposed benchmarks for airborne acoustical noise emissions do not reflect the lowest achievable values on the market. It means that the European Commission does not propose ambitious requirements to reduce the noise of dishwashers in the future. However, this is a very important aspect for users, especially for those living in flats, where high noise level might cause discomfort for user themselves and their neighbours.  

Update benchmarks and set stricter noise emission requirements (see EL Annex II B, Table 2).  

Set an Ecodesign requirement on noise emissions: eliminate appliances with airborne acoustical noise emissions of \( \geq 50 \text{ dB} \).  

2.4. More information should be provided to consumers before purchase  

We welcome the information requirements. It is positive that the proposal includes information on certain parameters such as the programme time, the energy consumption and the water consumption. However, not only should this information be provided to users in the booklet of instructions, but also in the product information sheet accessible to consumers before purchase. Furthermore, the information must be completed with the cleaning and drying performance of programmes as it is very important for consumers. In addition, the European Commission should clarify which programmes are specifically covered by this requirement as it is currently unclear.

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9 Proposal ‘The default period of time after which the power management function, or a similar function, switches the equipment automatically into a condition providing off-mode shall not exceed 20 minutes’.  
10 According to the consumer survey undertaken in the context of the preparatory study, 34% of respondents indicated that they have “no problems with programmes with long cycles”. Furthermore, short time programs is not amongst the most important purchase criteria when buying a new dishwasher.  
11 (Graulich et al. 2017) “Consumer survey on the use of washing programmes in the context of new policy options proposed in the EU Ecodesign and Energy label revisions for washing machines”.  
12 According to the CECED database 2014, this would be around 10% of the models (527 out of 5849 models on the market).
Information about parameters should be provided to users in both the booklet of instruction and the product information sheet.

Information about the performance, cleaning and rinsing performance of programs should be added.

Information about low power mode energy consumption should be included in the total energy consumption.

Define ‘main washing programmes’ to avoid loopholes. Intensity program which are necessary from time to time for the function of a dishwashers, should be covered.

3. RESOURCE EFFICIENCY

Overall, we strongly support that the European Commission proposed resource efficiency requirements, namely 1) information requirements for refrigeration gases, 2) design for dismantling for recycling, material recovery and depollution purposes, 3) declaration on spare parts availability, 4) access to repair and maintenance information for independent repairers with reasonable and proportionate fees.

We propose ways of improving these requirements and put forward new resource efficiency requirements:

3.1. Spare parts availability: shorter delivery time needed

According to the proposal, manufacturers will have to declare how long spare parts are available - for a minimum of 7 years - and should deliver them within 3 weeks. We support this requirement and propose to strengthen it by lowering the maximum delivery time to 1 week. A delivery time of maximum 3 weeks does not mean that an appliance is repaired within 3 weeks. Many users such as e.g. those in large families would not want to wait as long before having their dishwashers operational again. Moreover, the European Commission should specify which spare parts are covered under this requirement. Lastly, consumers should be able to claim their rights and receive compensation in case of non-compliance, i.e. non-delivery of spare parts.

- Set the maximum delivery time of spare parts to 1 week.
- Specify which spare parts are covered by the requirement.
- Ensure consumers can claim their rights in case of non-compliance.

3.2. Durability and guarantee should be investigated

Ecodesign has a very strong role for ensuring the longer life time of products. We call for three elements that implementing acts for Ecodesign specific product groups should stipulate:

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13 household washing machines and washer-dryers equipped with heat-pumps also use refrigerants.
Durability criteria
Firstly, we advocate in favour of the establishment of product specific technical durability criteria as provided for by the Ecodesign framework Directive. Such criteria have already been successfully established for vacuum cleaners and lighting. Member States are obliged to carry out public law enforcement on the whole product group in case the Ecodesign requirements (including durability) standards are not met.

Manufacturers’ guarantee
Secondly, we call for a manufacturers’ guarantee for a specific minimum period of time to be set in the specific ecodesign implementing measure. Manufacturers shall guarantee to repair or replace faulty products within this period. In general, the set periods should correspond to good market practices, consumer expectations and the average consumer use on which any technical durability criteria should also be based. For white goods, such as refrigerating appliances, washing machines, or dishwashers there should be a guaranteed durability of at least five years.

Consumer information about durability
The guarantee duration should also be indicated on the packaging of the product. This guarantee should be communicated in a clear manner to consumers such as in a specific number of years. We fear that technical units such as those currently indicated for lighting products, i.e. nominal life time of the lamp in hours, is unclear for consumers. In addition such indications normally cannot be verified by consumers and are, therefore, of limited use.

Implementing acts for Ecodesign specific product groups should stipulate durability criteria, manufacturers’ guarantee and consumer information about durability.

3.3. Software updates must be covered
As dishwashers are becoming increasingly connected, it is important that software updates of these appliances are easily available for consumers. In a survey from our German member, Verbraucherzentrale Bundesverband (vzbv), 30% of respondents said they replace their electronic devices because of software issues. As consumers are confronted with the lack of availability of software updates when it becomes outdated, their products’ life-expectancy decreases. Although most cases are currently observed with electronics such as mobile phones, TVs and computers, we fear they could spread to other types of appliances such as dishwashers.

In the case of computers and mobile phones, software updates which are made available are sometimes badly designed and lead to consumer dissatisfaction after they have been installed, as products may become slow or unreliable. This also needs to be kept in mind for dishwashers that will come to the market as of now, as similar developments should be avoided.

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14 VZBV survey from November 2016. More information can be provided upon request.
15 Our Dutch member organisation Consumentenbond has observed a lack of updates on products with Android software for mobile phones.
Include a requirement on software updates availability: the dishwasher shall come with a free function to allow the user to update the operating system. The manufacturer shall offer security updates for the operating system of the dishwashers for at least 5 years from the time that the production ceases.

4. ENERGY LABEL

4.1. The label must be based on more than one program

We do not agree with the European Commission’s proposal to continue with the current system which is to base the calculation of the Energy label (Energy Efficiency Index) on the ECO program only. Although we acknowledge that the use of this program has slightly increased since 2013, the ECO program is currently used to a limited extend, i.e. for only 19% of all dishwashing cycles, notably because of its long running time. We fear that the current proposal might fail to give the right information to consumers, leading to potential wrong decisions and unexpected energy bills. Furthermore, consumers expect that dishwasher displaying a good energy efficiency class, are efficient in all programs.

The calculation of the EEI should not be based on the ECO program only, but on a combination of programs. Those programs should be the most often used ones. (see Annex 1, point 1 (1) and Annex II, No. 1).

In the European Commission proposal, the name of the program shall be ECO. We welcome that the European Commission proposes to align both the standard and the regulation regarding the name of the program to be measured. It is also positive that the use of other names such as 'daily’, ‘standard’, normal is prohibited to encourage user to use the ECO program for daily use.

Names in standards and regulations should stay aligned as proposed.
Program names should be restricted to ensure the use of the Energy label program(s).

4.2. The label’s comprehensibility must be tested upfront with consumers

We welcome that the European Commission confirmed during the Ecodesign Consultation Forum meeting that stakeholders will 1) receive the terms of references of the consumer survey and 2) have the opportunity to comment on both the survey results and the modified label. ANEC and BEUC have already provided to the European Commission general recommendations on the design and the methodology of the consumer survey. In addition:

The label’s comprehensibility must be tested upfront with consumers.
Stakeholders should have a say - at earliest stages - on the design of the label.

16 “the standard cleaning cycle referred to as ‘ECO’ is suitable to clean normally soiled tableware and is the most efficient programme in terms of its combined energy and water consumption for that type of tableware”.
17 Hook, Schmitz, Stamminger et al., 2015.
4.3. Display the consumption per cycle (kWh/cycle)

We welcome that the weighted annual energy consumption (kWh/annum) has been replaced by the consumption per cycle (kWh/cycle). This information, when displayed on the label, is easier to understand for users according to consumer surveys. However, we advise to display this information with two decimals instead of three to ensure comprehensibility.

- Display of consumption per cycle to increase consumer comprehensibility should be kept in the final measure.
- Round up at the second decimal (X,YZ instead of X,YZW as proposed).

4.4. Information on noise emission must remain yet adapted

We agree with the European Commission’s proposal that the Energy label must include a pictogram informing consumers about the airborne acoustical noise emission. According to the 2015 EU consumer survey on dishwashing behaviour, it is the fifth most important attributes for consumers when buying a dishwasher. As the current display with decibel is not well understood, we welcome the initiative from the European Commission to investigate the comprehensibility of a three-sound wave pictogram (light, medium and loud noise emission classes). However, the proposed values for delimitating the three noise emission classes must be modified. In the proposal, consumers would only be able to choose between medium and loud dishwashers. To our understanding, the noise emission classes shall, similarly to the energy efficiency classes, provide consumers with an idea about the differences between household dishwashers available on the market and facilitate their purchase decision.

- Keep the noise information pictogram in the Energy label as proposed.
- Test the comprehensibility of a three sound waves pictogram in the consumer survey.
  (Once agreed up, the design of the pictogram must be similar across all product groups).
- Modify the limit values for acoustic airborne noise emission as follows:

<table>
<thead>
<tr>
<th>Noise Emission</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light noise emission</td>
<td>≤ 43 dB</td>
</tr>
<tr>
<td>Medium noise emission</td>
<td>44 to 46 dB</td>
</tr>
<tr>
<td>Loud noise emission</td>
<td>loud class: ≥ 47 dB</td>
</tr>
</tbody>
</table>

Furthermore, and as mentioned under 2.3., the proposed benchmarks for airborne acoustical noise emissions do not reflect the lowest achievable values on the market. The European Commission should put forward ambitious requirement to reduce the noise of dishwashers.

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19 Comprehensibility of the EU Energy label – Results of two focus groups and a representative consumer survey, VZBV Rheinland-Pfalz e.V 2014 https://www.verbraucherzentrale-rlp.de/media231718A.pdf
20 Idem.
21 According to the CECED Database of dishwasher models in 2014, this means that the light noise emission class would cover around 16% of the models, the medium 47% and the loud 37%.
4.5. Improve pictogram for distance selling and other types of advertisements

According to the new Energy label framework, consumers should – in the case of distance selling - be provided with at least ‘the energy class of the product and the range of the efficiency classes available on the label.’²² Although the pictogram proposed by the European Commission, for distance selling and visual advertisement/promotional material does show the energy efficiency class of the appliance, it does not illustrate well enough the range of energy of classes²³. For the sake of increasing consumers transparency, we propose that all the classes are displayed, i.e. A,B,C,D,E,F,G, instead of A-G only.

➔ Also for distance selling, the full scale should be displayed.
➔ The comprehensibility of the pictogram for online selling (and any others) should be tested upfront.

5. EDITORIAL COMMENTS

Inconsistencies regarding the definitions provided in the draft regulations and annexes:
- ED Article 2 (10) and (11), definitions of “standby mode” and “networked standby mode” refer to the definitions within EU regulations 1275/2008 and 801/2013; however, these regulations are currently under revision, i.e. a reference to these regulations might be outdated after their revision.
- ED Article 2 (12), definition of “off-mode”: it is recommended to align this definition to the definition of off-mode provided in regulation 1275/2008 or its revised version.
- ED Article 2 (13), definition of “left-on-mode”: the definition is not correct regarding the “indefinite time”; due to the introduction of a power management function, the mode will be ended after a definite time (20 minutes).
- ED Article 2 (14), definition of “equivalent household dishwasher”: align these definitions to those of the horizontal EL framework regulation 2017/1369, Article 2 (6).

Inconsistencies between picture and description of the Energy label design, EL Annex IV 2
- points (d) 8 and 9: Annual energy consumption / water consumption - change into cycle consumption.
- point (d) 10: drying efficiency class - inconsistency with the label picture as this symbol is not foreseen in the proposed label design any more.
- description of the symbol for programme time is missing.

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²³ Here is the Commission’ proposal