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Brussels, 28 November 2008

**Position of ECOS, EEB, CAN-Europe,  
INFORSE-Europe, Greenpeace and WWF**

**on the EC Working Documents  
on possible Ecodesign and Energy Labelling requirements  
for household white appliances**

*In the context of Directive 2005/32/EC establishing a framework for the setting of ecodesign requirements for energy using products.*

Document reference: EuP/2008/19

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## **Position of ECOS, EEB, CAN-Europe, INFORSE-Europe, Greenpeace and WWF**

### **on the EC Working Documents on possible Ecodesign and Energy Labelling requirements for household white appliances**

ECOS, EEB, CAN-Europe, INFORSE-Europe, Greenpeace and WWF (hereafter “Environmental NGOs”) welcome the Working documents from the European Commission on household white goods and believe it is needed to go forward with more aggressive policies, since market trends promote ever bigger capacities for fridges, freezers and washing machines, therefore undermining past efficiency gains.

**We would particularly like to warn decision makers about the following issues.**

#### **FRIDGES AND FREEZERS**

Despite improvements in energy efficiency in the past, the potential for ecodesign requirements remains high and the increase of average volume is worrying (+32% over last decade).

##### **1. Minimum performance requirements are too weak**

The level of the requirements and timing proposed are insufficient to grasp substantial energy savings to reach the EU 2020 targets. The EU is lagging far behind in setting such requirements for white goods, and it is unconceivable to wait another 6 years to set credible levels.

Basically, the proposed level for 2010 (EEI<55 for compressor-type appliances) corresponds to the level suggested by experts already... 15 years ago<sup>1</sup>.

Moreover, few fridges in next year European manufacturers’ catalogues would be affected by the first tiered level (the number would probably rise slightly for stand-alone freezers). And half of the fridge models already meet the second tiered level (so-called “stage 3”).

**Therefore, we call for changing these minimum requirements into:**

**1 year after entry into force: appliances of EEI<42 are left on the market (current A+ level).**

**4 years after entry into force: appliances of EEI<30 are left on the market (current A++ level).**

These levels prove feasible for the following reasons:

- A-rated products have been left on the market for a decade, therefore production lines have been overly repaid.
- A+ models are well-spread across today EU markets.
- Over 100 A++ models are already available on the EU market today. There has been a growing availability of new A++ appliances for 4 to 5 years.
- There are precedents, in the US, where minimum performance requirements have forecasted a complete renewal of models on the market in a 3-year period only.

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<sup>1</sup> See GEA study on Cold appliances in 1993 and the European COLD Project study in 2000. At the time of these two major studies, most of the correcting factors did not exist, energy prices were lower and many already considered the LLCC hypothesis to be rather conservative.

As far as absorption fridges are concerned, we fully support including them in the scope of the EuP measure, but we again believe that minimum requirements can be made more stringent and the third stage moved earlier. We also suggest not including them in the same labelling scheme as compressor-type, since it jeopardises the label clarity and may prevent an appropriate rescaling.

## 2. Tackling the issue of increasing volumes

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This trend to ever larger volumes will continue if Europe is to follow the US example where 500 litre fridges, "through-the-door features" and large display are becoming common for differentiation and marketing purposes. The proposed EEI index calculation is such that large volumes and additional features are rewarded rather than discouraged. And with it the absolute energy consumption.

**We suggest the EEI formula to be “curved”, so that the bigger the volume the more difficult it is to achieve virtuous indexes.** The annual consumption should not be a linear function but include a penalising factor for bigger volumes and additional features. This would in no case affect the “functionality” of the product, which is basically to cool a reasonable amount of food and drinks.

*We are ready to further work with our experts to submit a proposal for such a revised formula.*

## 3. Improving the energy labelling scale

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It appears introducing as much as 10 numerical classes in the proposed labelling scheme is unneeded, especially since classes 1, 2, 3 (E, F and G) would only concern the niche market of absorption fridges. This would create confusion among consumers, as the worst common fridges on the market would not be rated G but D. The main criticism addressed to the label today is precisely the numerous empty classes and the lack of credibility of A as the “class for excellence”.

**Therefore, we call the Commission to:**

- **Remove absorption fridges from this scale** and cover these niche products separately with adequate consumer information (e.g. a mention of the annual energy consumption).
- **Ensure consistency between the label scale and the minimum requirements.**

In particular, the least efficient compressor-type models on the market at the time of entry into force of the label should be rated at the bottom-end of the scale. There should also be possibility to indicate products that will go below EEI of 18<sup>2</sup>. On top of that, the EuP Preparatory Study has stated that the gap between current A+ and A++ classes is too large<sup>3</sup>, suggesting that energy classes could be made thinner.

**For all these reasons, we suggest the following alternative scales with 7 operating classes:**

EEI for step 1	Class - Step 1	Improvement between classes	EEI for step 2	Class - Step 2	Improvement between classes
EEI < 18	A		EEI < 14	A	
18 ≤ EEI < 21	B	14%	14 ≤ EEI < 16	B	13%
21 ≤ EEI < 25	C	16%	16 ≤ EEI < 18	C	11%
25 ≤ EEI < 30	D	17%	18 ≤ EEI < 21	D	14%
30 ≤ EEI < 35	E	14%	21 ≤ EEI < 25	E	16%
35 ≤ EEI < 42	F	17%	25 ≤ EEI < 30	F	17%
EEI ≥ 42	G		EEI ≥ 30	G	

<sup>2</sup> Model Blomberg CT 1300A, winner of the European “Energy+” competition in 2004, reached an EEI of 19.

<sup>3</sup> EuP Preparatory study Lot 13, report for task 7, Page 107.

As far as noise is concerned, the mandatory indication of the noise level on the energy labelling is a positive improvement. However, it should be ensured that this does not promote new models of absorption fridges, as it would be detrimental to energy efficiency. We expect the European Commission to ensure proper monitoring of market trends for these niche products.

#### 4. Removing correction factors

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Factors considered for the calculation of the “*adjusted volume*” are distorting the information to consumers, as they hide the true effect on the additional electricity consumption associated with several features. On the contrary, we believe consumers should be better informed that “frost-free”, built-in, etc. appliances need more energy. Moreover, these specific factors make testing and market surveillance more complex. Therefore, **we believe the correction factors should be removed or severely limited**. Here are our main arguments:

- **Climate class factors:** the Working document on Ecodesign measures questions the very relevance of such bonus factors (see. Page 10), as most models sold on the EU market are multiple-classed. We consider there is not enough justification to maintain these factors.
- **Built-in factor:** this allowance was already questioned in the European COLD II study. Rather than allowing a bonus to manufacturers, EU policies should better inform consumers about the need to leave some air circulating around the appliance for optimised performance.
- **Transparent door factor:** we really wonder if a transparent door is truly a good tool for limiting energy losses. This is suggested in the Working document, but based on very theoretical and questionable assumptions. Moreover, providing an energy bonus for this feature will simply annihilate the potential gain and in the end makes not much sense.
- **Chill compartment:** we question the specific treatment for chill compartment, i.e. a 50 kWh/year bonus on the standard annual energy consumption. We ask the Commission to provide more evidence about the need for such an allowance and the number proposed.

#### 5. Strengthening generic requirements

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- The generic requirement about fast-freezing features sets the automatic switch-off at 72 hours. **We believe this is too long.** The EuP Preparatory study has concluded that 48 hours would be sufficient (even with an overloaded appliance)<sup>4</sup>.
- **The information requirement for wine cabinets does not appear sufficient.** We suggest this alternative: “*Wine storage appliances should bear a mandatory indication on the front of the appliance (on the door or above) signalling that the product is not intended for food storage (through a sentence or adequate symbol)*”.
- **We question the need for the requirement on “winter switch setting”**, since it increases the annual electricity consumption, and the share of new household fridges sold which will go into rooms with ambient temperature below 16°C is relatively small.

#### 6. Verification procedure

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**We fully support the limitation of the testing tolerance to 10%.** We believe this could even be improved by limiting the variations between laboratory testing. For that, we call the Commission to:

- set up a standardised and robust accreditation procedure for laboratories across the EU
- support increased exchange of information and collaboration on tested products among Member States.

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<sup>4</sup> EuP Preparatory study Lot 13, report for task 7, page 120.

## WASHING MACHINES

Despite energy efficiency improvements in the past, the new trend of increasing load capacity on new washing machines (now often coming in 8 and 9 kg) is of great concern. This increases the overall electricity consumption, while consumer behaviour has not changed that much. Two partial load programs for 3 kg in a 8 kg machine consume more than a full-load in a 6 kg machine.

We believe one reason for the trend for big sizes is the fact that with the current labelling scheme, the bigger the machine, the easier it is to reach an A+ or A++ rating. Using the new EEI formula proposed would lead to correcting this situation. However, this would not happen by penalising big machines, rather by giving a bonus to smaller machines (compared to current rating).

### 1. Generic requirement on cold wash needed

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We regret that **the proposed measures do not anticipate and promote the evolution towards cold washing**. Washing at 20°C or less is a substantial progress for energy savings<sup>5</sup> and appropriate detergents already exist. However, “cold programs” are still not mainstream.

We suggest adding a generic requirement, two years after entry into force of the measure:  
*“All washing machines shall include cold programs enabling users to wash below 20°C.”*

### 2. Minimum performance requirements are too weak

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Here again, the level of the requirements and timing proposed are insufficient to grasp substantial energy savings to reach the EU 2020 targets. The EU is lagging far behind in setting such requirements for white goods, and it is unconceivable to wait another 6 years to set credible levels.

We estimate the proposed first staged requirements would be quasi-ineffective. Most models are already at (current) energy class A level.

**Therefore, we call for changing the minimum requirements on energy efficiency into:**

**1 year after entry into force: current A+ class (0.17 kWh/kg) and better left on the market.**

**4 years after entry into force: cut-off limit lowered at equivalent to 0.15 kWh/kg.**

Regarding water consumption, we observe that the limits proposed (ranging from 60 to 75 L depending on capacity) are 50% to 75% higher than benchmark figures (ranging from 35 to 52 L). This shows these levels are really not challenging. We suggest these alternative limits for water:

**50 Litre for 5 kg capacity, 55 Litre for 6/7 kg capacity, 65 Litre for 8 kg capacity.**

In parallel, it is important to avoid consumers believing that rinsing quality is poor with low water consuming machines and then over-using the “additional rinse” function (which is not included in the calculation of EEI and annual energy consumption). Therefore, **we support development of standardised methods to evaluate the rinsing efficiency and measures to improve it.**

Finally, as regards washing performance, imposing level A to all machines does not seem particularly demanding as well.

### 3. Serious concern with the suggested energy labelling

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We deeply question the proposed scale for the upgraded energy labelling scheme. In practice, only letters A and B would exist on the market at both steps. This shows an issue of scaling and lack of ambition. Otherwise, the label simply loses its purpose of differentiating models towards increased efficiency.

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<sup>5</sup> Washing at 20°C rather than 40°C usually means saving 50% on the electricity consumption.

For this reason, we suggest the following alternative table with at least 6 operating classes, to be introduced one year after entry into force of the measure:

EEI	Class	Improvement between classes
EEI < 38	A	
38 ≤ EEI < 42	B	9.5%
42 ≤ EEI < 47	C	11%
47 ≤ EEI < 53	D	11%
53 ≤ EEI < 59	E	10%
EEI ≥ 59	F	

#### 4. Strengthening the EEI theoretical calculation

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The formula in Annex V of the Working document on Ecodesign and Annex VII of the Working document on Labelling is to be used in case the revised IEC 60456 standard is not available.

**We consider this formula inaccurate**, as it does not fairly represent the reality and would artificially improve the resulting EEI index. It is of utmost importance to use a correct assumption, as the transitional period might be longer than expected and a too generous formula would not motivate manufacturers to speed up the achievement of the new standard.

We believe this alternative formula to be more relevant:

$$E_t = [3 \times E_{t,60} + 2 \times (0.75 \times E_{t,60}) + 2 \times (0.56 \times E_{t,60})]/7$$

- 0.75 instead of 0.8, as experts usually estimate that an overall 25% electricity saving is achieved between a part load and full load at 60°C.
- 0.56 instead of 0.64, as experts estimate that 44% of the energy for heating water is saved when switching from a 60° to a 40° program. Overall saving from full 60° to part 40° is then 44%.

#### 5. Promoting hot fill

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The hot fill issue has been raised and debated during the Preparatory study. Some believed there should not be mandatory requirements on all machines for an option only relevant for a part of the population (those having access to clean and/or efficient district heating, using renewable-based water heating, etc.). However, increasing the communication on and uptake of hot fill-ready machines may also be a good policy to promote efficient and renewable solutions.

Therefore, **we suggest adding a mention on the energy labelling indicating whether the model is hot-fill ready** and suggesting that it can improve the environment. Here is a possibility (to be translated in national language):

<b>Hot-fill ready</b> <i>(enhances eco-performance if your domestic hot water comes from renewable or efficient source)</i>	<b>YES</b>
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#### 6. Verification procedure

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**We fully support the limitation of the testing tolerance to 10%.** We believe this could even be improved by limiting the variations between laboratory testing. For that, we call the Commission to:

- set up a standardised and robust accreditation procedure for laboratories across the EU
- support increased exchange of information and collaboration on tested products among Member States.

## DISHWASHERS

Even if dishwashers have become more energy efficient in the past, it seems the overall consumption of the stock has not substantially decreased. A study in France is showing a stable consumption, explained by an average increased use of dishwashers<sup>6</sup>.

### 1. Minimum performance requirements are too weak

Nearly all new models seem to already reach energy class A. This means the first proposed requirement at current A level (EEI < 71) will have no visible effect.

Considering that differentiation between models on energy performance is very limited at the moment, we acknowledge that setting a first tier in one year might be difficult.

**Therefore, we propose the single following stage for energy performance:**

**4 years after entry into force: minimum energy performance level at EEI < 63.**

The measure could be revised in three years in order to plan new stages.

Concerning drying performance, setting a limit at current C level not before the so-called “stage 3” is also questionable, as the share of below C products is already very limited. **We suggest setting this requirement already in stage 1.**

As regards washing performance, imposing level A to all machines does not seem particularly demanding as well.

### 2. Serious concern with the suggested energy labelling

We deeply question the proposed scale for the upgraded energy labelling scheme. In practice, only letters A and B would exist on the market at both steps. This shows an issue of scaling and lack of ambition. Otherwise, the label simply loses its purpose of differentiating models towards increased efficiency.

**For this reason, we suggest the following alternative table with at least 6 operating classes, to be introduced one year after entry into force of the measure:**

EEI	Class	Improvement between classes
EEI < 45	A	
45 ≤ EEI < 50	B	10%
50 ≤ EEI < 56	C	11%
56 ≤ EEI < 63	D	11%
63 ≤ EEI < 71	E	11%
EEI ≥ 71 (current A)	F	

In addition, the suggested indication of drying efficiency on the label poses similar trouble. Most of the classes would already be empty under “7”. This would not be a reliable and fair information to consumers. **We propose to remove this indication, at least after the entry into force of EuP “stage 3”.**

<sup>6</sup> Campagne de mesure des appareils de production froid et des appareils de lavage dans 100 logements, projet AEE, Enertech pour l'ADEME et EDF, 2008.

### 3. Generic requirement to start earlier

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We believe **the generic requirement setting the *standard operating mode* should start as soon as the labelling and minimum requirement schemes.**

In the booklet for instructions, the so-called “eco-mode” should be defined as the standard normal mode, not as a specifically *super-green* mode.

**We also recommend adding an additional mandatory generic requirement**, specifying in the booklet that full-load wash is preferable to part-load cycles, since a full load is more energy efficient than two part-load programs.

### 4. Promoting hot fill

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The hot fill issue has been raised and debated during the Preparatory study. Some believed there should not be mandatory requirements on all machines for an option only relevant for a part of the population (those having access to clean and/or efficient district heating, using renewable-based water heating, etc.). However, increasing the communication on and uptake of hot fill-ready machines may also be a good policy to promote efficient and renewable solutions.

Using hot fill is technically much easier on dishwashers than on washing machines. Therefore, **we suggest adding a mention on the energy labelling indicating whether the model has optimised programs for hot-fill** and suggesting that it can improve the environment. Here is a possibility (to be translated in national language):

<b>Hot-fill optimised</b> <i>(enhances eco-performance if your domestic hot water comes from renewable or efficient source)</i>	<b>YES</b>
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### 5. Verification procedure

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**We fully support the limitation of the testing tolerance to 10%.** We believe this could even be improved by limiting the variations between laboratory testing. For that, we call the Commission to:

- set up a standardised and robust accreditation procedure for laboratories across the EU
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