Brussels, 3 July 2008

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

on the 3rd version of the EC Working Document on possible Ecodesign, Energy Labelling and installation requirements for Dedicated Water Heaters

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

Document reference: ECOS/EuP/2008-16

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

on the 3rd version of the EC Working Document on possible Ecodesign, Energy Labelling and installation requirements for Dedicated Water Heaters (circulated on the 1st of July 2008)

ECOS, EEB, CAN-Europe, INFORSE-Europe, Greenpeace and WWF (hereafter "Environmental NGOs") welcome the organisation of a supplementary Ecodesign Consultation Forum on Water Heaters in order to move forward on this product group.

However, **we would like to warn the Commission and Member States that any weakening of the ambition of the EuP measures on water heaters and boilers would pose a substantial threat to the whole Ecodesign process, since these product groups represent a half of the global potential.**

1. Scope of the measure

- Environmental NGOs suggest that the scope be extended to **include water heaters using "waste heat"** (typically for pre-heating or through a heat pump). Waste heat should include heat from waste water (typically warm because of the water heater) and exhaust air that cannot be used to heat incoming ventilation air.

- We suggest that the scope be extended to **include district-heating equipment**. As district-heating based water heaters are typically more efficient than other water heaters, an important requirement for this type of equipment would be the labelling scheme, which could inform consumers on the comparison of efficiencies of all existing solutions. This comparative information is essential and often difficult to find.

- We believe that any classification based on letters (S, L, XL…) should be followed by a description of the performance, e.g. in typical daily hot water production and storage volume.

- We support the proposal to **include CHP-based water heaters in the future**. We suggest that this topic is addressed in the revision of the Implementing Measure in 2014.

2. Comments on the requirements targeting energy efficiency

Environmental NGOs consider that **some of the requirements suggested in the successive versions of the Working Document are still not ambitious enough**.

In particular **we strongly reject the favour granted to electrical equipment,** which cannot be considered as energy efficient heating solutions.

- Environmental NGOs expect substantially stronger requirements in 2013 (i.e. three years after the measure enters into force), similar to those proposed for 2015 in the previous version of the Working Document: **energy efficiency thresholds of 34% for XS-S, 41% for M, 55% for L, 60% for XL, 72% for XXL, 80% for 3XL and 86% for 4XL**.

- Environmental NGOs are deeply concerned by the loophole envisaged in clause I.2 (*Size Limits*), where a manufacturer could declare a water heater to be in a smaller class to avoid fulfilling efficiency requirements for its class. Instead, **manufacturers should declare water heaters in the highest size class in which they can fulfil the tapping pattern**.

- As we had already stated, some EU Member States already introduced (or are planning to introduce) national legislation to improve the energy efficiency of water heaters on their territory,

Environmental NGOs call on the European Commission to ensure that these national policies will not be removed if they happen to be more ambitious than the EU Ecodesign scheme. An updated benchmark of these policies would be helpful in this respect.

3. Comments on the requirement on air emissions

- Environmental NGOs **still expect a low limit on NOx emissions**, since the Preparatory study considered reasonable to set a maximum of 20 ppm. Therefore **we totally reject the proposed I.3.1 variant**.
- Environmental NGOs may support a slight derogation for equipment partly using renewable energy sources. However, **the suggested 40 mg derogation should not be allowed for equipment with less than 50% of RES in the primary energy consumption**.
- Given the global warming impact of methane, it should also be considered to set a limit for methane emissions from gas boilers.

4. Comments on the Energy Labelling scheme

- Environmental NGOs still **strongly support a labelling independent of the energy source**.
- We still consider it **totally unacceptable that small water heaters with poor efficiencies as low as 32% could be rated "A"** . This would be a completely flawed signal to consumers.
- We are still **concerned by a labelling scheme including many +/++/+++ mentions,** as it would create confusion and hamper the impact of the policy. Furthermore, it would be more logical that the labelling scheme follows the Ecodesign requirements, i.e. that G-labelled products correspond to the bottom of tolerated products under EuP limits in 2009, and then E becomes the bottom class in 2011. Therefore we suggest to move the proposed labelling scale by two or three classes up, i.e.: A+++ becomes A, …, D / E becomes G (D for XXS-S, E for M-4XL).
- The label should include information describing the size / load profile: for instance the typical daily use and the hot water storage (in litres). It should also include the noise level and for solar water heaters and heat pumps the climatic zone for which the energy efficiency has been calculated.

5. Comments concerning consumer information

- The fiche (in II.2.2.) should include noise information and it should be available on the internet.
- Catalogues and other information sources (II.2.3) should also contain the information on noise and a link to the fiche posted on the internet.

6. Comments on benchmarks

- Environmental NGOs suggest adding in point 8 (benchmarks) the best performance values for refrigerants (global warming potential) and lowest methane leakage.

7. Specific concerns for refrigerants used in heat pumps

Environmental NGOs still consider that the provisions regarding refrigerants are insufficient to really move the market towards products with lowest global warming potentials (GWP).

- We still propose that for refrigerants with a GWP higher than 10, products should **bear a mandatory mention about the danger of refrigerant leakage and the need to properly recycle the equipment**.

➢ Environmental NGOs also suggest considering an **Ecodesign requirement on the impact of the refrigerant fluid, so that only the least damaging ones are tolerated in heat pumps after a certain period of time**. The reference to GWP of 2000 in the Working Document is far too high. Any requirement targeting refrigerants should set the threshold at maximum GWP of 10.

8. Easy dismantling and recycling

Even if the use phase is the most relevant when considering the environmental impact of a water heater, it should be ensured that **their dismantling and recycling in their end of life is facilitated through smart design options**. Many pieces of a heating system are valuable and the bill of materials includes materials that may need special treatment (especially the refrigerant).

➢ Therefore we still suggest **adding an Ecodesign requirement on this aspect**.

9. Installation requirements

➢ In Annex III, second bullet on obligations of member states: the permission for water heaters should also be set without prejudice to requirements on the overall heat demand of a building or flat specified in the building code or similar local regulation.

10. Comments on verification procedures

➢ The proposed test pattern for energy efficiency of water heaters allows very low temperatures for the smallest equipment. It needs to be ensured that it will not be possible to have a water heater that only provides hot water of, for instance, 25℃ during the entire test, unless they are specifically made for low temperature hot water (below 55℃) and clearly labelled as such.

➢ Environmental NGOs cannot support that through testing in test houses with higher test errors, equipment with lower measured efficiencies can be allowed. The same for declared values (in clause I.5.2).

➢ Environmental NGOs believe that for declared values, the test results should not be higher than the measurement tolerance below the declared value. Similarly for the declared NOx values.

11. Comments on the methodology and calculation model

Environmental NGOs had already provided comments on the methodology (*see our earlier position paper on the initial Working Document on Water Heaters*[1]). In particular we insisted on the need to clarify and simplify the mathematical model and its “user guide”.

As several versions of the methodology have been circulated since, especially the new ANNEX IV for water heaters with an incredibly short notice, Environmental NGOs will only be able to provide detailed comments during the Consultation Forum meeting of July 8. Here are a few preliminary remarks:

➢ The Working Document seems to use the assumption that electricity is multiplied by 2.5 to compare to fossil energy (regarding primary energy use). This assumption should be clearly stated.

➢ Environmental NGOs support in principle the inclusion of climatic zones for solar-fuelled an heat pump-based water heaters. However the proposed "arctic" and "tropical" zones do not seem appropriate to describe the European situation. The energy labelling should specify for which zone the energy efficiency is given.

➢ The mentioned solar radiation of 5 kW/m^2 is probably an error, since the theoretical maximum is 1.366 W/m^2 outside the atmosphere.

[1] http://www.ecostandard.org/downloads_a/eup_environmental_ngos_boilers_22-02-08.pdf