



Joint EHPA – EPEE - EUROVENT position on the appropriateness of class boundaries
for the energy label for heat generators under ENER Lot 1
August 2011

Brussels, 22 August 2011

Dear Dr Lichtenvort,

Our industry associations have been asked by Mr Kolb to comment on the current class boundaries for the energy label for heat generators, in particular for the A++ and A+++ classes with regard to heat generators at a 55°C and a 35°C level.

Mr Kolb informed us that Commission regulation expected that the top classes should not be populated by a significant number of products at the start of a measure. He explained “significant” as to be approx. 10 to 20% of the market.

Based on our assessment, we can confirm that no significant number of products will achieve the requirements set for A+++ and A++ classes. Thus the class boundaries as suggested by the commission are feasible.

We would like to underline that our analysis is based on test results of product types. The calculation of market share makes the (incorrect) assumption that the shares of product types tested and the share of actual sales are identical. As a strong relation between price and performance exists, the share of product types that would achieve A+++ and A++ is not identical to the market shares of these products in actual numbers.

We hope that these comments are helpful and are available for further discussion.

Kind regards,

A handwritten signature in black ink, appearing to read 'Thomas Nowak'.

Thomas Nowak
EHPA

A handwritten signature in black ink, appearing to read 'Andrea Voigt'.

Andrea Voigt
EPEE

A handwritten signature in black ink, appearing to read 'Joop Hoogkamer'.

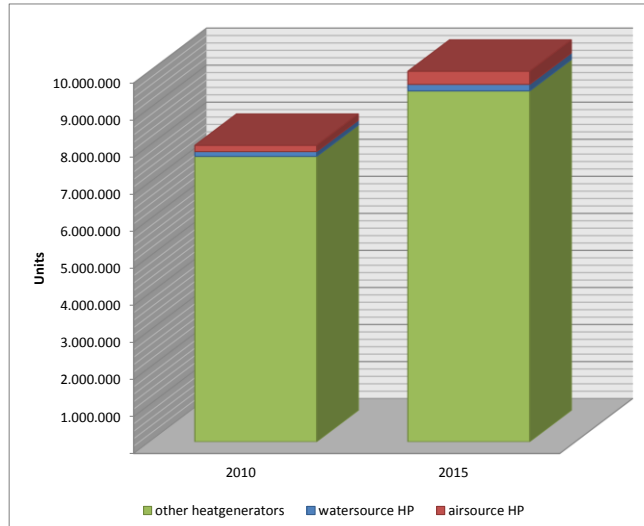
Joop Hoogkamer
EUROVENT

1. General background data:

In 2010 approx. **250 000 heat pumps** connected to a hydronic distribution system and designed predominantly for heating were sold in Europe (Source: Outlook 2011: EHPA market overview and statistics).

The total market for heat generators has been estimated at **8 mio units** (refer to ecodesign study for lot 1) resulting in a market share of heat pumps of approx. 3%. **55%** of all units sold in 2010 are air-water units, **45%** are ground coupled. Air-air units are excluded from this analysis, as they are not in scope.

The market share of heat pumps in the stock of heat generators is much lower than in sales due to the fact that the product is only recently (since approx.. 2005) is gaining significant market share.



For 2015, it is expected that global heat generator market will grow up till **10mio units**, but the share of heat pumps will drastically increase, up till **520 000 heat pumps**, with a share of 34% ground coupled units and 66% of air source products. (source: BRG + estimation of Industry).

Furthermore, to determine the **efficiencies** in these markets, we can use the **data of the German incentive scheme** (BAFA, 05/05/2011) to define the possible population of the energy label by heat pumps.

For future tendencies, we have estimated that the efficiency of heat pumps may improve with 15%, in order to obtain an optimistic evaluation. However, this is very ambitious.

2. Results of market estimations:

2.1. For energy labels related to low temperature application (35°C)

Population of energy labels by heatpumps related to total heatgenerator market for low temperature application														
	2010				2015				2010			2015		
	absolute data based on models listed in BAFA		relative data based on models listed in BAFA		absolute data based on models listed in BAFA		relative data based on models listed in BAFA		relative to market (market estimated 8mio)			relative to future market 2015 and eff. Improvement of 15% (market estimated 10mio with increased heatpump market percentage from 3,75% to 5,29%)		
	A/W	W/W	A/W	W/W	A/W	W/W	A/W	W/W	A/W	W/W	TOTAL	A/W	W/W	TOTAL
	COP2	COP0	COP2	COP0	COP2	COP0	COP2	COP0	COP2	COP0		COP2	COP0	
total units	571	1.370	100%	100%	571	1.370	100%	100%	2,06%	1,69%	3,75%	3,52%	1,77%	5,29%
A+++	39	1.363	7%	99%	314	1.370	55%	100%	0,14%	1,68%	1,82%	1,94%	1,77%	3,71%
A++	188	7	33%	1%	225	-	39%	0%	0,68%	0,01%	0,69%	1,39%	0,00%	1,39%
A+	311	-	54%	0%	32	-	6%	0%	1,12%	0,00%	1,12%	0,20%	0,00%	0,20%
A and lower	33	-	6%	0%	-	-	0%	0%	0,12%	0,00%	0,12%	0,00%	0,00%	0,00%

2.2. For energy labels related to high temperature application (55°C)

Population of energy labels by heatpumps related to total heatgenerator market for high temperature application					
	2010		2010		
	relative data based on models listed in BAFA		relative to market (market estimated 8mio)		
	A/W	W/W	A/W	W/W	TOTAL
	COP2	COP0	COP2	COP0	
total units	100%	100%	2,06%	1,69%	3,75%
A+++	0%	10%	0,00%	0,17%	0,17%
A++	2%	60%	0,04%	1,01%	1,05%
A+	98%	30%	2,02%	0,51%	2,53%
A and lower	0%	0%	0,00%	0,00%	0,00%

3. Additional notes:

The recommendation made is based on an analysis of data from the German subsidy scheme as listed by the operating agent (BAFA list dated 05.05.2011). This scheme sets minimum requirements for the efficiency of heat pumps for obtaining incentives, efficiency is measured according to EN 14511 and EN 255 (COP).

For the assumptions on air to water, COP at 2°C is used as the bases for comparison, however, it should be noted that eta values (SCOP) will be lower, with about 15% due to degradation, on/off and standby losses.

For water to water and brine to water (so called ground coupled), COP at 0°C or 10°C is used, with the understanding that eta values will be equal to SCOP.

It must be noted, that the heat pumps listed by BAFA represent the better performing units on the market. In general, we can assume that on a total EU market, average efficiency will be lower. So these estimations show a rather optimistic view.

It should be noted that the performance difference for heat pumps in low temperature applications is much better than in high temperature applications. To express this advantage also in the market place, **labelling should be allowed for all heat pumps at 35°C** (see former common positions from EPEE/EHPA/EUROVENT).



EHPA	EPEE	Eurovent
<p>EHPA was established in the year 2000 to promote awareness and proper deployment of heat pump technology in the European market place for residential, commercial and industrial applications. EHPA today has 91 members representing the majority of actors in the European Heat Pump Industry. The association aims to provide technical and economic input to European, national and local authorities in legislative, regulatory and energy efficiency matters. All activities are aimed at overcoming market barriers and dissemination of information in order to speed up market development of heat pumps for heating, cooling and hot water production. It is the declared aim of the association to make heat pumps a core technology in the development towards a more energy efficient, RES based, sustainable energy system.</p> <p style="text-align: center;">www.ehpa.org</p>	<p>The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies and national associations across Europe realising a turnover of over 30 billion Euros and employing more than 200,000 people in Europe.</p> <p>As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies.</p> <p style="text-align: center;">www.epeeglobal.org</p>	<p>Eurovent, the European Committee of Air Handling and Refrigeration is the representative of the European refrigeration, air conditioning, air handling, heating and ventilation industry and represents trade associations from European and non-European countries.</p> <p>Eurovent represents over 1,000 companies in 14 European countries, employing 150,000 employees who jointly generate more than € 25 billion of annual output. Eurovent was initially founded in 1958 and has been functioning under its current name since 1964.</p> <p>Eurovent has become over the years a well-known and respected stakeholder in all industry related matters and, in particular, in climate change and energy efficiency.</p> <p style="text-align: center;">www.eurovent-association.eu</p>