



Position of ECOS, EEB, Friends of the Earth Europe, WWF EPO, CAN Europe and INFORSE Europe on possible ecodesign requirements for air heating - cooling products and high temperature process chillers

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Environmental NGOs welcome the Working Documents on air heating - cooling products and high temperature process chillers and agree with the need of setting Ecodesign requirements for these products. Ecodesign (and energy labelling requirements that we propose below), would push and pull respectively the market respectively towards more efficient products, which we fully support.

The expected reductions of 10Mt of CO₂ emissions by 2030 with the proposed regulation is indeed significant, it is however less than a 10% reduction from the baseline (107Mt emissions in 2005), not taking into account the rising emissions by 2030. It clearly shows that this product regulation can only be a small contribution to the necessary reductions in greenhouse gas emissions and reduction of fossil fuel use from these products. Fuel shift, system regulation (such as building codes) and others are also needed, which are generally outside the scope of Ecodesign regulations.

Scope

Concerning the scope, **it is important for equipment using free cooling (e.g. groundwater) as well as solar air heating**, used particularly in northern/central and southern Europe respectively, **to be included in the Ecodesign requirements** (as well as the Energy Labelling, which we propose below). In the preparatory study for air heating (Lot 21), these forward thinking solutions were not adequately discussed. Taking into account the lack of evidence base for these products, including them at this stage may not be possible; in this case they should at least be included in the review clause.

Ecodesign requirements and timing

The current proposal states entry into force in 2017 and 2019 respectively, while the preparatory study suggested 2015 and 2017. In order not to further delay these savings from being achieved, but taking into account the complexities of this file, we call for the **first tier to enter into force 1 year after publication and Tier 2, 3 years down the line.**

We also propose to increase the energy efficiency levels in the proposed tier 1 for air-air heat pumps to 149%, conforming to the levels in existing regulation for smaller air conditioners (Commission Regulation EU 206/2012). The proposed Tier 1 requirement for air-air heat pumps in this Working Document (WD) is 141%, while the equivalent in EU-206/2012 for 2014 (so before the Tier 1 for Lot 21 would be implemented) is 149% for smaller equipment (with

similar functionality)¹. Table 1 below illustrates this difference.

Heat pumps	EU206/2012, From 1/1/14, below 12 kW, electric	Refrigerant GWP >150	SCOP = 3,80 seasonal eff. 149% ²
		Refrigerant GWP < 150	SCOP = 3,42 seasonal eff 134% ²
	WD on Lot 21, above 12 kW, electric, tier 1	All refrigerants	seasonal eff. 141%

Table 1. Comparison of proposed and already adopted requirements for smaller air-conditioners according to regulation EU 206/2012

In addition, even though the proposed energy efficiency requirements at tier 2 will cut off a significant number of products from the market, we call for these ambitious levels to be maintained. This is not the first time such a marked market shift would take place; the circulators regulation (EU 641/2009) cut off more than 90% of the market. The product groups falling under this proposed regulation have not been addressed in the past, allowing therefore substantial room for improvement. Moreover, experience gained from previously adopted Ecodesign regulations, whereby requirements have been consistently set at a less stringent level compared to the actual market evolution, suggests that manufacturers should be able to swiftly adapt to these requirements. **We therefore urge the Commission to maintain all the proposed Tier 2 requirements, based on the LLCC level identified in the preparatory studies.**

Moreover, **we propose to align NOx limits for this product group with the levels utilised in the recently published regulation for heaters and water heaters (EU 811/2013)**, concerning equipment that operates at similar temperature ranges. The NOx emissions can be seasonal emissions, measured as an "annual average", **but the use patterns must be further analysed.** For heat pumps an average of 15% full load and 85% of 30%-load (the latter figure used in other Ecodesign regulation for space heating) is not representative, as heat pumps are in many cases used together with a boiler for peak load.

We also support the use of third party certification for this product group, in particular for the larger products. It is foreseeable that market surveillance concerning the diverse range of these products included in this regulation will not be possible and adequate. Third party certification therefore ensures a better enforcement than market surveillance alone. We also suggest that the rated coefficient of performance (COPrated) should be deleted, since we could not find anywhere in the document where it is actually used. This may be misleading as the achieved COP is the Seasonal COP (SCOP) and not the COPrated.

Insufficient promotion of alternative refrigerants

Taking into account the significant impact of leaked refrigerants during the use and end of life phase for comfort cooling products, a strong signal should be sent to the market supporting the use of low-GWP refrigerants. We therefore maintain our earlier position on this topic that **a total ban should be applied for refrigerants with GWP>150 at Tier 1 for comfort cooling products**, where components and parts are available and the safety risk is not critical.

In case the ban would be required by the revised F-gas regulation by 2020, the proposed bonus for equipment with low GWP would be acceptable to cover the transition period but, **should be only applied to refrigerants with GWP<150.** This would also be in line with Ecodesign regulation

¹ In EU 206/2012 the respective limit is SCOP = 3,80 for equipment (<6kW) using refrigerants with GWP>150 from 1/1/2014. Divided by CC = 2,5 and subtracting of 3% for controls, the seasonal cooling efficiency limit can be calculated at 149%
² Corrected by contributions accounting for temperature controls proposed in the document on transitional methods for the Lot 21. Here, a reduction of 3%: F(1) = -3% is proposed.

Energy Labelling

We call for the inclusion of energy labels, specifically covering small and medium-sized products that are sold for comfort use. Even though they are business to business products, purchase and installation of these specific products are far from optimised in real life. Many buyers will benefit from a label that can raise awareness of the energy consumption of the product. Moreover, **smaller air-conditioners and air-air heat pumps already have energy labels, while boilers and air-water heat pumps up to a capacity of 70 kW have energy labels following regulation EU 811/2013.** It is thus logical that also medium-sized air-conditioners and air-air heat pumps up to a 70 kW also have labels. In addition to the awareness raising effect of the labels, they would promote the development of high-efficient products, such as condensing warm air heaters. These are not being promoted by the Ecodesign regulation, which only requires minimum energy efficiency requirements. Consequently, some non-condensing warm air heaters will stay on the market, even though they have substantially lower efficiencies than the condensing warm air heaters.

For all the aforementioned reasons, we **propose energy labels for air conditioner heat pumps, comfort chillers, and warm air heaters up to a capacity of 70 kW cooling or heating.**

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