



Raising standards for consumers



The Consumer Voice in Europe

Preparatory study on the revision of the Ecodesign and Energy Labelling requirements on household refrigeration

ANEC/BEUC comments on the draft report on tasks 1-6 of 14 November 2015

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Prolonged lifetime and durability minimum requirements

1. Prolonged lifetime

By extrapolating current trends and taking into account possibly stricter Ecodesign requirements phasing out A+ models it is expected that by the time the revised regulations enter into force the products put on the market would belong to energy efficiency classes A++ and A+++. According to Gensch and Blepp (2015)¹ further efficiency gains of 40-50% with respect to A+++ are necessary in order to achieve environmental payback times² of 10 years and less. This means that it only makes sense to replace an A+++ model if the new model has half the electricity consumption of the A+++ one. The analysis in Task 6 of the preparatory study shows that the savings of the current BAT compared to A+++ efficiency levels are between 10 and 25%. Only in case of fridge-freezers (COLD 7) further efficiency gains of 45% are foreseen (see tables 64 to 69). The study team also concludes that “there are no BNAT (Best Not yet Available Technology) options that we feel will come to market within a time-period that is relevant for reshaping the Ecodesign and Energy Labelling measures”. This means that, especially in case of A+++ appliances a longer life time makes sense.

In addition, taking into account the average electricity consumption of fridge-freezers since 1980 and its extrapolation until 2020, Bakker et al. (2014)³ come to the conclusion “that product life extension is the preferred strategy [...]: refrigerators bought in 2011 should be used for 20 years”.

¹ Gensch, C. and Blepp, M.: Betrachtungen zu Produktlebensdauer und Ersatzstrategien von Miele-Haushaltsgeräten. Im Auftrag der Miele & Cie. KG. 2015.
https://www.miele.com/media/miele_com/media/files/infomaterial/Studie_Oeko-Institut_Lebensdauer_2015.pdf

² i.e. the time it takes until the additional efforts to produce a new product equals the cumulated efficiency gains through lower consumption during the use phase.

³ Bakker, C; Wang, F.; Huismana, J.; den Hollandera, M.: Products that go round: exploring product life extension through design, Journal of Cleaner Production, Volume 69, 15 April 2014, p. 10-16.

Also, if there is a shift in the electricity mix to more renewable energy sources, the Global Warming Potential (GWP) during use phase is lower, resulting in smaller savings potential through more efficient appliances and thus advantages for appliances with longer durability.

This forward-looking information indicate that extending the lifetime of refrigerating appliances that will be placed on the market in the future can be beneficial both for consumers as well as for the environment. We invite the study team to consider this information in the analysis.

2. Minimum durability requirements

An important aspect, which is not yet sufficiently covered by the preparatory study, is related to durability minimum requirements that would ensure a minimum product lifetime. It would be important to analyse the impacts of a lifetime which is much lower than the average. GfK data (see Prakash et al. 2015⁴) show that the average age of refrigerators that were replaced due to a defect decreased from 15.1 years in 2004 to 14.0 years in 2012/2013 and in the case of freezers the average product age decreased from 16.1 years in 2004 to 13.0 years in 2012/13. Especially the share of appliances that were replaced due to a defect within the first 5 years has increased substantially. One reason for this early replacement could be attributed to the price decrease for new products and the price increase for repair over the past years. Both these trends can constitute repair relative expensive compared to the purchase of a new appliance. As a result, even though a repair would still be possible it is no longer economically viable. Therefore, requirements that ensure a certain minimum lifetime are very important to prevent early failures and subsequently premature replacements.

This aspect is for example covered in the study by Ricardo AEA on *“The Durability of Products -- Standard assessment for the circular economy under the Eco-Innovation Action Plan”*. This study considers a minimum lifetime of 7 years as appropriate for refrigerating appliances. The study looks into existing standards as a starting point for the development of a standard for measuring the durability of these components that are more likely to fail. It also identifies aspects that might serve as generic minimum design and construction requirements aiming to ensure a certain quality level and thus a minimum lifetime.

We invite the study team to provide a detailed analysis of durability aspects and technical solutions in the final report.

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⁴ Prakash, S.; Dehoust, G.; Gsell, M.; Schleicher T. & Stamminger, R. (2015). Einfluss der Nutzungsdauer von Produkten auf ihre Umweltwirkung: Schaffung einer Informationsgrundlage und Entwicklung von Strategien gegen „Obsoleszenz“: Available at http://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/texte_10_2015_einfluss_der_nutzungsdauer_von_produkten_auf_ihre_umwelt_obsoleszenz_17.3.2015.pdf