

Title of the measure:	EU27 A+, A++ labels refrigerators (2003/66/EC)
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General description

Electricity use by refrigerators, freezers and their combinations accounts for a significant part of total Community household energy demand. The further scope for a reduction of energy use by these appliances is substantial. The success of the labelling scheme introduced by Commission Directive 94/2/EC, in conjunction with Directive 96/57/EC of the European Parliament and of the Council of 3 September 1996 on energy efficiency requirements for household electric refrigerators, freezers and combinations thereof has led to a rise of the efficiency index of new refrigerators and freezers by over 30 % between 1996 and 2000.

About 20 % of the cold appliances sold in 2000 were in the most efficient class A, and in some markets the proportion was more than 50 %. The market shares of A class appliances is rising rapidly.

Consequently, there is a need to introduce two additional classes, to be designated as A+ and A++, as an interim arrangement until a comprehensive revision of the energy labelling classes takes place.

The effect of labelling on energy efficiency will diminish, or disappear, unless further and more efficient classes are defined, therefore, Directive 94/2/EC should be amended accordingly.

Directive 94/2/EC is amended as follows:

1. Article 1, paragraphs 2, 3 and 4 are replaced by the following:

- The information required by this Directive shall be obtained by measurements made in accordance with harmonised standards adopted by the European Standardisation Bodies (CEN, CENELEC, and ETSI) under mandate from the Commission in accordance with Directive 98/34/EC. The reference numbers of the national standards transposing those harmonised standards.
- The provisions in Annexes I, II and III requiring the giving of information relating to noise shall apply only where that information is required by Member States under Article 3 of Directive 86/594/EEC. This information shall be measured in accordance with that Directive.
- In this Directive the definitions set out in Article 1(4) of Directive 92/75/EEC shall apply.

2. Article 2 is amended as follows:

In paragraph 1, the following subparagraph is added:

"Where the information relating to a particular model combination has been obtained by calculation on the basis of design, and/or extrapolation from other combinations, the documentation should include details of such calculations and/or extrapolations, and of tests undertaken to verify the accuracy of the calculations undertaken (details of mathematical model for calculating performance and of measurements taken to verify this model)."

Paragraph 5 is replaced by the following:

"5. Where the appliances are offered for sale, hire or hire purchase by means of a printed or written communication, or by other means which imply that the potential customer cannot be expected to see the appliance displayed, such as a written offer, a mail order catalogue, advertisements on the Internet or on other electronic media, that communication shall include all the information specified in Annex III."

Impact evaluation

SEC(2009) 1021 analyzes along with the impact of 2003/66/EC, following options;

- **BAU:** Business-as-usual scenario, i.e. continuation of current Community policy measures (current labelling scheme only) and no further action at EU level;
- **Sub-option EE44-15:** EEI<55 in 2010, EEI<44 in 2015;
- **Sub-option EE44-13:** EEI<55 in 2010, EEI<44 in 2013;
- **Sub-option EE42-15:** EEI<55 in 2010, EEI<42 in 2015;
- **Sub-option EE42-13:** EEI<55 in 2010, EEI<42 in 2013.
- **Sub-option EE44/42-12/14:** EEI<55 in 2010, EEI<44 in 2012 and EEI<42 in 2014.

The report concludes;

– by 2020, absolute electricity savings of 30-35% can be achieved against the reference year 2005 (due to the market inertia (i.e. full replacement of old models by new types takes about 15 years), the effects of the new measures will be very limited up to 2020 compared with the baseline scenario, but by 2025 the energy consumption of all installed domestic refrigerators and freezers could be half of the energy consumption in 2005);

– the cost-effective level of energy consumption is reached, with a savings potential of 4 TWh in 2020 compared to the BaU scenario, increasing to 12 TWh in 2025 if sub-option EE44/42-12/14 is implemented;

Table 1: CO₂ and energy savings in the sector

Ex-post evaluation				
CO ₂ (kt)				
Energy (TJ)				
Ex-ante evaluation				
	2016	2020	2025	
CO ₂ (Mt)				
Energy (TWh)		4	12	

Measure Impact Level:

• • low

• • medium

X

high

References

1) Directive 2003/66/EC amending Directive 94/2/EC implementing Council Directive 92/75/EEC with regard to energy labelling of household electric refrigerators, freezers and their combinations
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003L0066&from=EN>

2) Domestic refrigeration appliances: energy efficiency:
<http://europa.eu.int/scadplus/leg/en/lvb/l21016.htm>

3) Monitoring of energy-efficiency trends of European domestic refrigeration appliances: final report, PW Consulting and ADEME for DG-XVII of the European Commission, SAVE contract No. XVII/4.1031/D/97-021, 1998. (MONITOR I)

4) Monitoring of energy efficiency trends of refrigerators, freezers, washing machines and washerdryers sold in the EU, PW Consulting and ADEME for DG-TREN of the European Commission, SAVE contract No. XVII/4.1031/Z/98-251, 2000. (MONITOR II)

5) GfK (2003): Evolution of sales of domestic appliances in Western Europe, Matilde Soregaroli, GfK Italia. 3rd International Conference on Energy Efficiency in Domestic Appliances and Lighting – EEDAL'03, Torino, Italy 1 – 3 October 2003