

Technology Development



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Project	Energy star: feedback on Draft 1 version 2 Specification				
Subject:	Energy consumption data requirement for "commercial refrigeration and freezers"				
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Contribution					
Area:	Ecotechnology				

- 1. Electrolux Professional Refrigeration Platform agrees with the complete compliance between the superseded standard ASHRAE 117 and new one ASHRAE 72:2005 in terms of energy consumption and performance test.
- 2. By analysis of the "REVISED table 1: Specifications for Energy Star qualified commercial Food - Grade refrigerators and freezer" Electrolux Professional Refrigeration Platform underlines that the difference between the old energy limits and the new ones are in range of 25% - 50%.
- 3. Electrolux Professional Refrigeration Platform confirms its interest in Energy Star Program and supply proposal regarding the following appliances category:
 - Single solid door refrigerator and freezer cabinet;
 - Double door refrigerator and freezer cabinet;
 - Dual temperature (900l $1+\frac{1}{2}$ doors $2^{\circ}C/+10^{\circ}C$ and 300l $\frac{1}{2}$ door $-6^{\circ}C/+6^{\circ}C$) cabinet;
 - Dual temperature (9001 1+1/2 doors 2°C/+10°C and 3001 1/2 door -24C/-15°C) cabinet;
 - Refrigerated horizontal counter.

As follow up of previous list the below reported considerations:

- 1. There no remarks regarding test method;
- 2. The first version of eligibility criteria are already a great challenge performed to eco sustainable design: in our opinion a potential reduction of this limits above 25% could be enough as second step of this challenge.

A reduction of 50% could be the cause of the unsuccessfully result of the program. In particular we refer to single solid door cabinet belong to 0<V<20 category.

3. Proposal:

Product Type	Refrigerator	Freezer	
0 <v<20< td=""><td><=0,04V+1,25</td><td><=0,3007V+0,3</td><td>Energy Star Proposal: -50%</td></v<20<>	<=0,04V+1,25	<=0,3007V+0,3	Energy Star Proposal: -50%
0 <v<20< td=""><td></td><td></td><td>Electrolux proposal:-25%-30%</td></v<20<>			Electrolux proposal:-25%-30%



Category dual temperature (Refrigerator-Freezer)

Product Type	•••	•••	Refrigerator-Freezer	
30<=V<70				Energy Star Proposal: TBD
30<=V<70			0,243aV-0,639	Electrolux proposal

Proposal for horizontal refrigerated counter:

It is impossible to apply the same limit formula used for refrigerated cabinet for this kind of appliance too. The volume dependency is incorrect. It is necessary to define a different volume categorization:

0<V<10

10<=V<15

15<=V<20

in order to combine correctly the net volume of appliance and multiplicative factor into energy consumption formula.

The data of our listed appliance are officially published on the web site of Energy Star.