

<b><i>Title of the measure:</i></b>	<b>FRA2 Labels on electrical households appliances</b>
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### ***General description***

#### **The “Old EU Energy Label”**

A framework law on the mandatory labelling of household appliances was adopted in July 1994 (Decree n°94-566 of July 7 1994) to transpose the EU Directive on labelling (92/75/CEE). Different European directives have then been adopted to specify their application for each type of appliance:

- **refrigerators, freezers and their combinations** (94/2/EC)
- **washing machines** (95/12/EC)
- **combined washing machines/clothes dryers** (96/60/EC)
- **dishwashers** (97/17/11)
- **domestic lamps** (98/11/EC)
- **air-conditioners** (2002/31/EC)
- **ovens** (2002/40EC)

ADEME and EDF, in partnership with equipment manufacturers, have financed promotion campaigns for the general public. Information campaigns were also organised on the place of sales, with distribution networks.

#### **The “New EU Energy Label”**

The Directive 92/75/CEE was modified by the **Directive 2010/30/EC** which was transposed by Decree n° 2011-1479 of 9 November 2011 into French law.

It introduces the project to extend the existing energy label to **energy-related products** in the commercial and industrial sectors, for example cold storage rooms and vending machines. Now the related products are declined by regulations directly applicable in national law instead of directives

The new European regulations adopted are the following:

- Dishwashers (No 1059/2010): This regulation entered into force on 20 December 2010. It applied on **20 December 2011** for the most part and the entirety of the regulation shall apply from **20 April 2012**.
- Refrigerating appliances (No 1060/2010): This regulation entered into force on 20 December 2010. It applied on **30 November 2011** for the most part and the entirety of the regulation shall apply from **30 March 2012**.
- Washing machine (No 1061/2010): This regulation entered into force on 20 December 2010. It applied on **20 December 2011** for the most part and the entirety of the regulation shall apply from **20 April 2012**.
- Television (No 1062/2010): This regulation entered into force on 20 December 2010. It applied on **30 November 2011** for the most part and the entirety of the regulation shall apply from **30 March 2012**.
- Air conditioners (No 626/2011): This regulation entered into force on 26 July 2011. It shall apply from **1 January 2013**.
- Household tumble driers (No 392/2012): This regulation entered into force on 1 March 2012. It shall apply from **29 May 2012**.
- Electrical lamps and luminaires (No 874/2012): This regulation entered into force on 12 July 2012. It shall apply from **1 September 2013**.
- Vacuum cleaners (No 665/2013): This regulation entered into force on 3 May 2013. It shall apply from **1 September 2017**.
- Water heaters, hot water storage tanks and packages of water heater and solar device (No812/2013): This regulation entered into force on 18 February 2013 It shall apply from **26 September 2015**.
- Domestic ovens and range hoods (No 65/2014): This regulation entered into force on 1 October 2013. It shall apply from **1 January 2015**.

#### **Evolution of the label**



Image 1 –Energy label for a dishwasher before Directive 2010/30

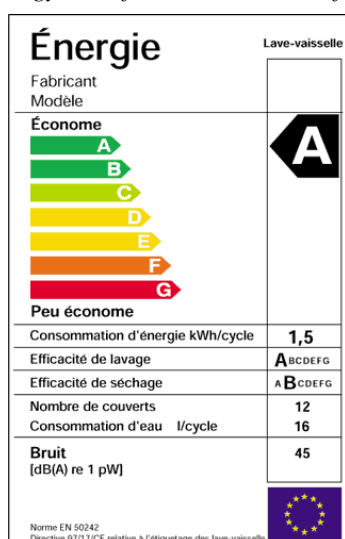
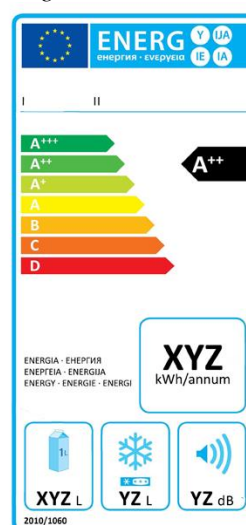


Image 2- The new label



On the new label, energy consumption is displayed in **kWh/year**.

Moreover, the new layout of the energy efficiency label gives room to up to **three new energy classes** to reflect technological progress. The principle of the energy labelling system is that the energy label starts with the classes A for the most efficient products and goes until class G for the least efficient ones. The new Energy Labelling Directive introduces new efficiency classes A+, A++ and A+++ on top of the existing A grade for the most energy-efficient household products. The most efficient class is represented by A+++.

However, the total number of classes will **still be limited to seven**. The "A" to "G" scale will then appear as follows: if the highest class is A+, the lowest class will be F. If the highest class is A++, the lowest class will be E. If the highest class is A+++ , the lowest class will be D.

Beside, on the new label, texts are replaced by pictograms (about for instance sound level) which are the same in the 28 EU Member States. Thus, the new label is linguistically neutral.

### ***Impact evaluation (methods and results)***

#### **Follow-up of the market distribution per energy classes:**

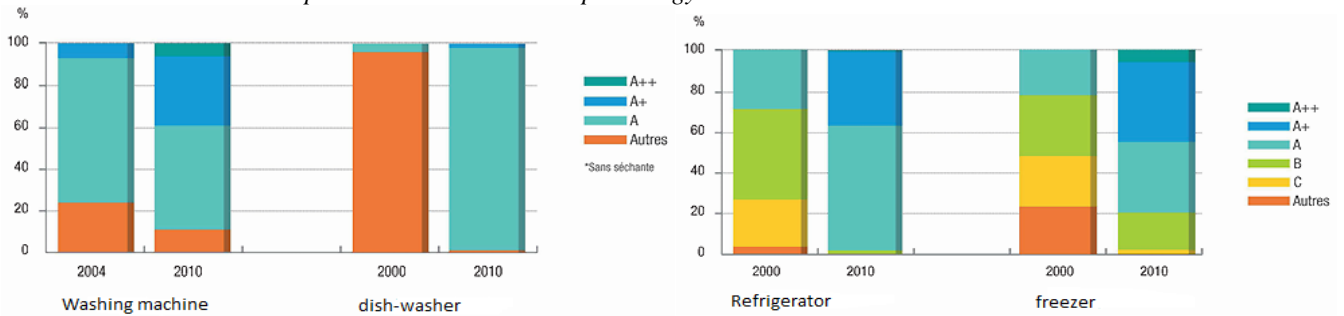
Table 1 - Percentage of label A in annual sales between 1995 and 2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Refrigerator-freezers	0,6	0,5	2,3	3,1	7,7	18,10	21,5	21,8	23,3
Washing machine		0,1	0,6	5,1	23,4	35	46,5	57,5	65
Dish washers								54,2	63,7

Table 2 – Percentage of several classes between 2006 and 2009

		2006	2007	2008	2009
<b>Combined fridge and freezer</b>	B or worse	8,8	5	2,5	1,8
	A	69,4	72,9	66,6	58,5
	A+ & A++	21,8	22,1	31	39,7
<b>Freezer</b>	B or worse	36,6	27,3	20,8	11,3
	A	41,3	44,9	46	53,7
	A+	21,1	25,7	30,4	30,7
	A++	1	2,1	2,8	4,3
<b>Washing machine</b>	B or worse	9	7,4	6	4,5
	A	71,5	65,8	60,2	59,6
	A+	19,5	26,8	33,9	36
<b>Clothes dryer</b>	D or worse	5,7	7	5,7	4,9
	C	88,1	80,8	73,4	62,7
	B	6,1	12	20,5	30,1
	A	0,1	0,1	0,5	2,4

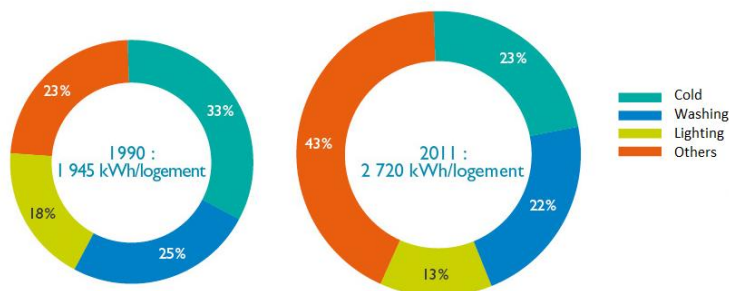
Graph 1- Market distribution per energy classes in 2000 and 2010:



SOURCE: GfK

Thus, the energy efficiency of electrical household appliances has improved spectacularly.

**Distribution of specific electricity consumption in domestic use**

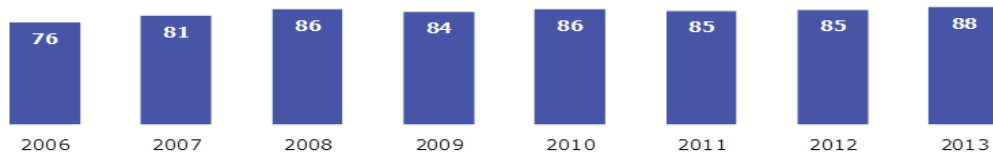


Source: CEREN - 2013

Graph 2-The share of each domestic use in specific electricity consumption in 1990 and 2010

**Poll (2013):**

Each year, TNS Sofres polls around 10 000 households.



Graph 3 – Do you know the energy labels that are displayed on the appliances (refrigerator, washing machine, dishwasher, etc.), exposed in stores, and indicate the category of energy consumption? (%)



Graph 4- Over the past 3 years, has the energy label influenced your choice when purchasing an household appliances?

**Study made by a consumer advocacy group**

In March 2010, the pollster of “UFC Que Choisir” (a consumer advocacy group) visited 1,464 stores and noted the label, model and price of 7,395 appliances: 3,501 refrigerator-freezers, 3,894 clothes-dryers.

- The first remark is that for refrigerator-freezers, there are no class B to G anymore but only A,A+ and A++ and that for clothes-dryers, there are no class D to G anymore but only A,B and C. **It creates confusion for consumers:** one can buy a A refrigerator-freezer believing that is environmentally friendly but it is actually the most energy greedy class.
- The second remark deals with the price.

Table 3 – Average prices (€)

<b>Refrigerator-freezers</b>	<b>A</b>	<b>A+</b>	<b>A++</b>
Average price	496	581	778
<b>Clothes-dryers</b>	<b>C</b>	<b>B</b>	<b>A</b>
Average price	396	616	928

Table 4 – Cost overrun and energy savings for the purchase of an appliance in a better class

<b>Refrigerator-freezers</b>	<b>A → A+</b>	<b>A → A++</b>
Average cost overrun	85€	282€
Energy savings for 10 years(*)	90€	160€
<b>Clothes-dryers</b>	<b>C → D</b>	<b>C → A</b>
Average cost overrun	220€	532€
Energy savings for 10 years(**)	140€	290€

- (\*) A→A+ : gain of 80 kWh/year that is to say 9€/year (11.5 c€/kWh)
- A → A++ : gain of 140 kWh/year that is to say 16€/year
- (\*\*) C→B : gain of 120 kWh/year that is to say 14€/year
- C→ A : gain of 250 kWh/year that is to say 29€/year

Thus, **the purchase of an appliance that consumes less energy is not economically profitable.** That's why the consumer advocacy group advocates a sort of "bonus-malus" for appliances as the one for cars.

**Study made by ADEME and based on the old label (Bilan de l'évolution du parc électroménager français et évaluation « bottom-up » des économies d'énergie depuis la labellisation énergétique des appareils- décembre 2011)**

An assessment of the effect of the energy label on the average energy class purchased by consumers between 2000 and 2010 led to the following estimates for the energy savings achieved thanks to energy labelling of 5 categories of device: fridge, freezer, fridge and freezer combined, dishwasher, washing machine.

Years	Total (GWh)
2000	181
2001	399
2002	654
2003	982
2004	1305
2005	1685
2006	2089
2007	2515
2008	2968
2009	3422
2010	3860

Table 5: Actual energy savings per year in GWh

<b>Measure Impact Level</b>		
<input type="checkbox"/> low	<input type="checkbox"/> medium	<input checked="" type="checkbox"/> high

Definition of impact:

Low: energy savings < 0.1% of overall energy consumption

Medium: between 0.1 and 0.5%

High: > 0.5%

Explanation:

According to ADEME, the final energy consumption of the residential sector was 484TWh in 2010. 3.86 TWh savings thanks to energy labelling represent 0.80% of this final energy consumption.

***Interaction of measures***

FRA14 Minimum efficiency standards for electrical appliances (refrigerators and freezers)  
Eco-design

***Historical data***



## **References**

- <http://eur-lex.europa.eu/legal-content/FR/TXT/HTML/?uri=CELEX:32010L0030>

(Directive 2010/30/EC)

-Decree n° 2011-1479 of 9 November 2011:

<http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000024772479&dateTexte>

-TNS Sofres polls