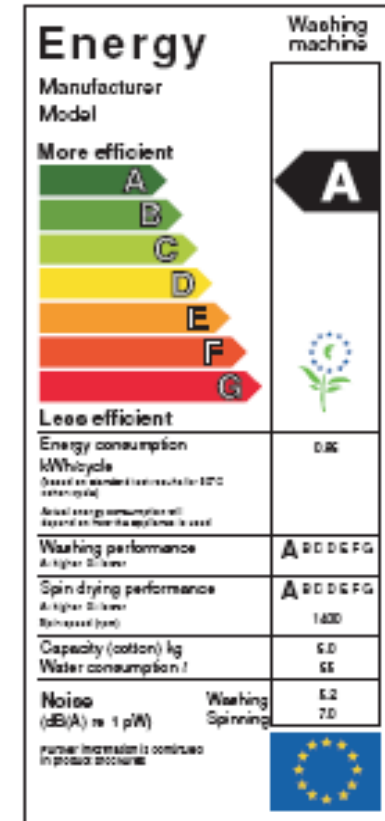


Energy Labelling of Household Appliances and its Importance to Retailers



SEVEN

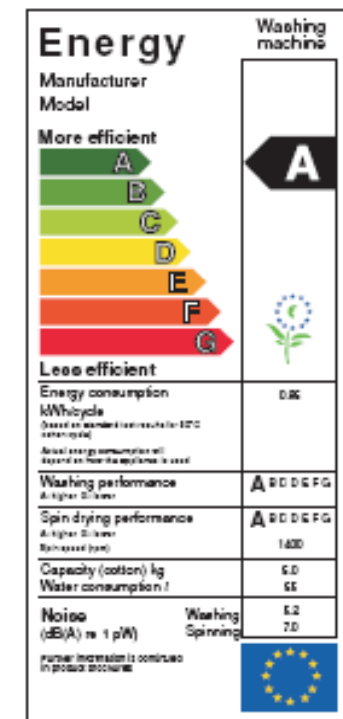
Intelligent Energy Europe

Contents:

- What is an energy label and what does it mean to appliance retailers
- Why is a label important for consumers, retailers and society
- Which appliances are labeled and which are not?
- Information on the label
- **How labelling works in practice and state control**
- Sales arguments for efficient appliances


What Is an Energy Label?

- Energy labels contain basic information about energy consumption (as well as water consumption) and shows the energy class
- It enables the calculation of the overall operation costs of the appliance
- The law prescribes that an energy label has to be shown on the appliance at the point of its sale.



Why Is an Energy Label Important for Retailers?

- Offers basic information to clients
- Improves the quality of sales and promotion of the shop
- Positive reaction of the public due to protection of the environment
- Fulfills a legal duty

Energy		Washing machine
Manufacturer Model		
More efficient		A
A		
B		
C		
D		
E		
F		
G		
Less efficient		
Energy consumption kWh/cycle <small>(Based on standard test results for EC2 standards) Actual energy consumption will depend on how the appliance is used</small>		0.8
Washing performance <small>(Higher classes = higher classes)</small>	A B C D E F G	
Spin drying performance <small>(Higher classes = higher classes) Spin speed (rpm)</small>	A B C D E F G	1400
Capacity (cotton) kg		5.0
Water consumption l		55
Noise (dB(A) re 1 pW)	Washing Spinning	52 70
<small>Further information is contained in product literature</small>		

Why Is an Energy Label Important for a Client?

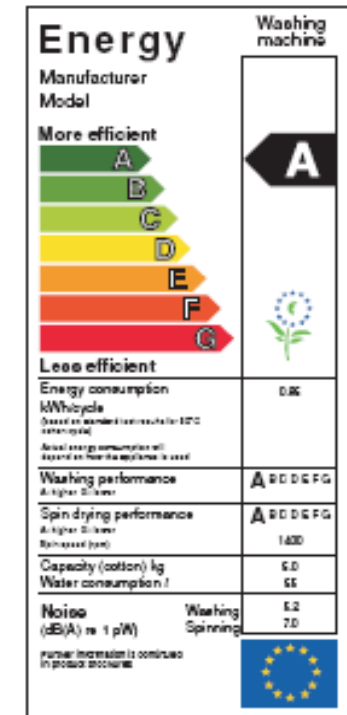
- Overall orientation of the client about energy efficiency parameters of the appliance at a time of growing energy prices
- The possibility of quick selection by comparing energy (and water) consumption between appliances in the same category
- Guarantee of identical methodology of testing and control of the content of labels

Why Is an Energy Label Important for Manufacturers?

- Promotion of energy efficient appliances on competitive markets
- An argument for the acceleration of replacing old inefficient appliances with modern ones
- Documentation of technological progress towards energy efficiency and the lowering of operation costs

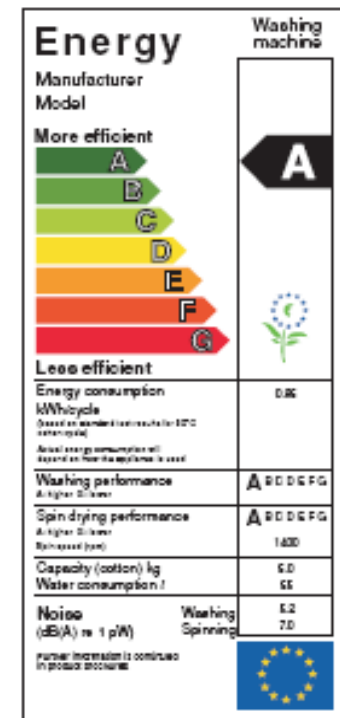
Which Household Appliances Have to Be Marked by the Label:

<ul style="list-style-type: none"> • Washing machines
<ul style="list-style-type: none"> • Electric tumble driers
<ul style="list-style-type: none"> • Combined washer-driers
<ul style="list-style-type: none"> • Refrigerators, freezers and their combinations
<ul style="list-style-type: none"> • Dish washers
<ul style="list-style-type: none"> • Electric ovens
<ul style="list-style-type: none"> • Electric water heaters
<ul style="list-style-type: none"> • Household lamps
<ul style="list-style-type: none"> • Household air-conditioners



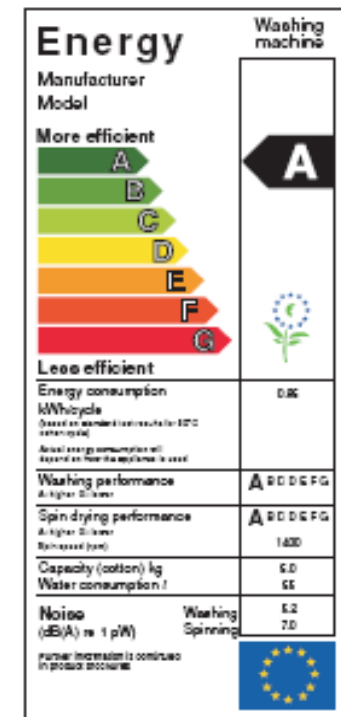
How Appliances Have to Be Marked by the Label:

- The label has to be shown on the front or side of the appliance, clearly visible and not covered by anything
- This includes: build-in appliances, with no regard to their surface (chrome, etc.)
- The label has to be complete (colour part with the arrows and the black and white strip with numbers)
- Manufacturers (importers) are automatically obliged to supply labels for each appliance to shops, at no cost to the retailer



When Appliances Have to Be Marked by the Label:

- ... whenever it is being sold or exhibited (shops, kitchen studios, etc.)
- For catalogue and internet sales, the graphic design of the label is not used, but concrete data from it has to be published (specified by law).



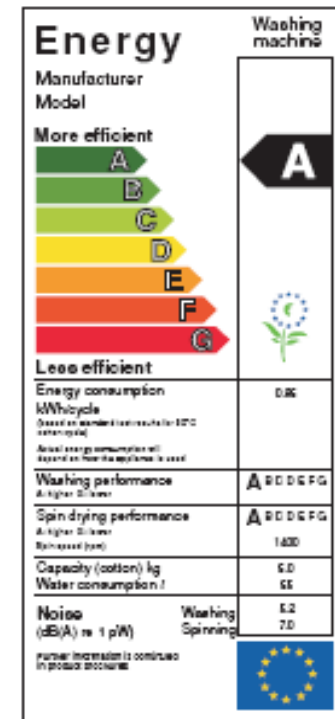
Which Appliances Do NOT Have to Be Labelled:

Even though discussions are held to enlarge the labelling system to include more appliances, currently it is not used for: microwave ovens, hair dryers, TV sets, Hi-Fi, VCR and DVDs, etc, because:

- Difference in the energy consumption of these appliances is not significant
- Their total energy consumption depends mainly on the form and length of their operation
- Information about stand-by consumption is currently not part of the energy label

Information Content of the Energy Label

- Name of the manufacturer and concrete product type
- Selection of energy class
- Electricity consumption for one (washing, drying) cycle or for 24 hours
- Other efficiency classes - washing, spinning, cleaning, drying, etc.
- Water consumption (washing machines, dishwashers), noise, etc.
- More, according to appliance type



Interesting Things from the Label:

- Concrete example for a washing machine
- Energy class A+ and A++
- Which refrigerators can still be sold?
- New appliances which have to be labelled

Energy		Washing machine
Manufacturer Model		
More efficient		
A		A
B		
C		
D		
E		
F		
G		
Less efficient		
Energy consumption kWh/cycle <small>(Based on standard conditions for EEC countries) Annual energy consumption will depend on how the appliance is used</small>		0.85
Washing performance <small>A: higher classes</small>	A B C D E F G	
Spin drying performance <small>A: higher classes</small> Revolutions per hour	A B C D E F G	1400
Capacity (cotton) kg		6.0
Water consumption l		55
Noise (dB(A) re 1 pW) <small>Maximum increase in continuous in product structure</small>	Washing Spinning	62 70

Interesting Things from the Label:

- **Concrete example for a *washing machine*:**

Energy class	Electricity consumption in kWh for 1 kg of laundry (60°C, cotton)	Share of sales in the Czech Republic in the year 2004 (Source: GfK)
A	< 0.19	78 %
B	0.19 – 0.23	14%
C	0.23 – 0.27	0 %
D	0.27 – 0.31	5 %
E	0.31 – 0.35	-
F	0.35 – 0.39	-
G	> 0.39	-

Interesting Things from the Label:

What is energy class A+ and A++ ?

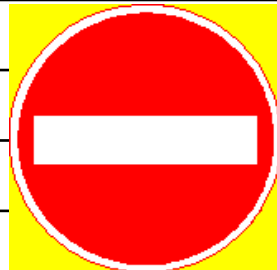
- Formally, it is only valid for refrigerators, freezers and their combinations.
- An A+ appliance is 25% more efficient and an A++ class appliance is 50% more efficient than an A class appliance!
- This difference is very important when considering the 10 year lifespan of the appliances
- Note: Thus far, the A+ class for other appliance types are only voluntary marketing agreements without any legal basis



Interesting Things from the Label:

- **Refrigerators labelled Class D and lower cannot be sold at all!**

Energy Class	Energy Efficiency Index
A++	$30 > I$
A+	$42 > I > 30$
A	$42 > I > 55$
B	$55 > I > 75$
C	$75 > I > 90$
D	$90 > I > 100$
E	$100 > I > 110$
F	$110 > I > 125$
G	$125 > I$




Interesting Things from the Label:

These appliance types have been the latest to be included in labelling systems:

- electric ovens
- electric water heaters
- household air-conditioners

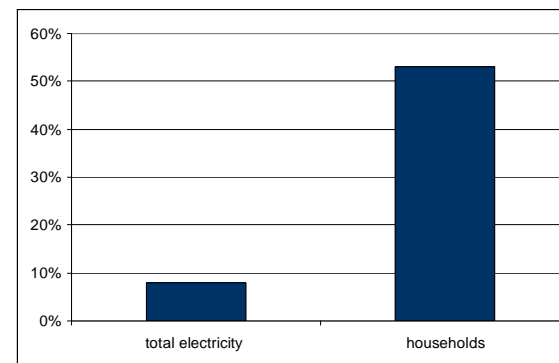
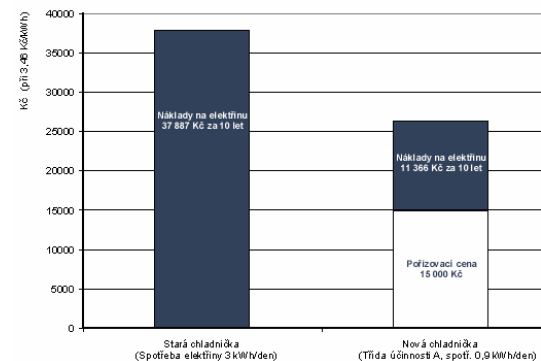
The presence of labels for these appliances in shops tends to be lower and, therefore, has to be controlled with higher priority!

Energy		Washing machine
Manufacturer		
Model		
More efficient		
A		A
B		
C		
D		
E		
F		
G		
Less efficient		
Energy consumption kWh/cycle		0.86
<small>Based on standard conditions (12°C ambient temp) Actual energy consumption will depend on how the machine is used</small>		
Washing performance	A B C D E F G	
Spin drying performance	A B C D E F G	1400
Capacity (cotton) kg		6.0
Water consumption l		55
Noise (dB(A) re 1 pW)	Washing 5.2 Spinning 7.0	
<small>Further information is contained in product literature</small>		
		

Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

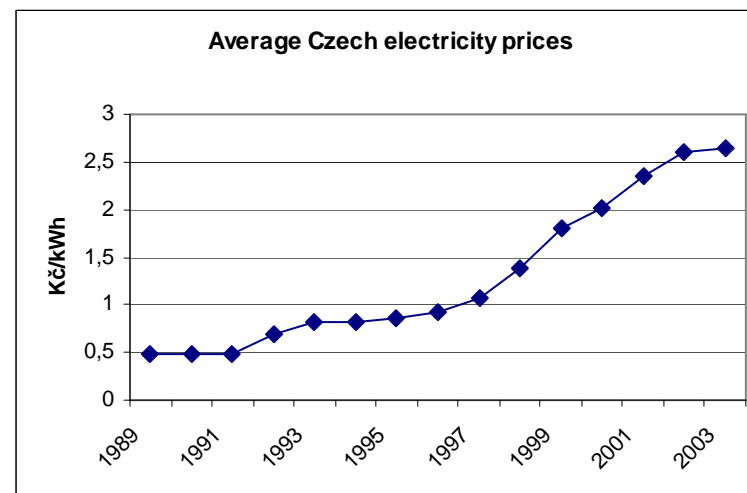
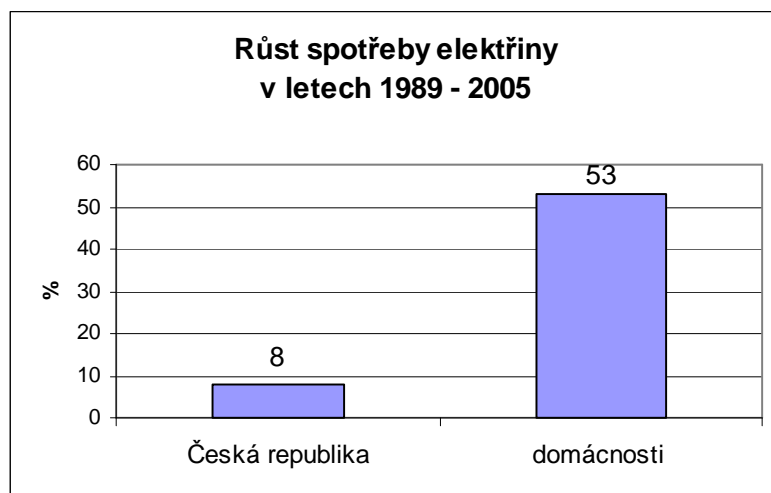
- Growth of energy consumption and prices, more appliances in households
- Costs of appliance operation
- Average lifespan of appliances
- More efficient appliances on the market
- If all would save a little...

Porovnání nákladů na provoz staré a nové chladničky (10 let)



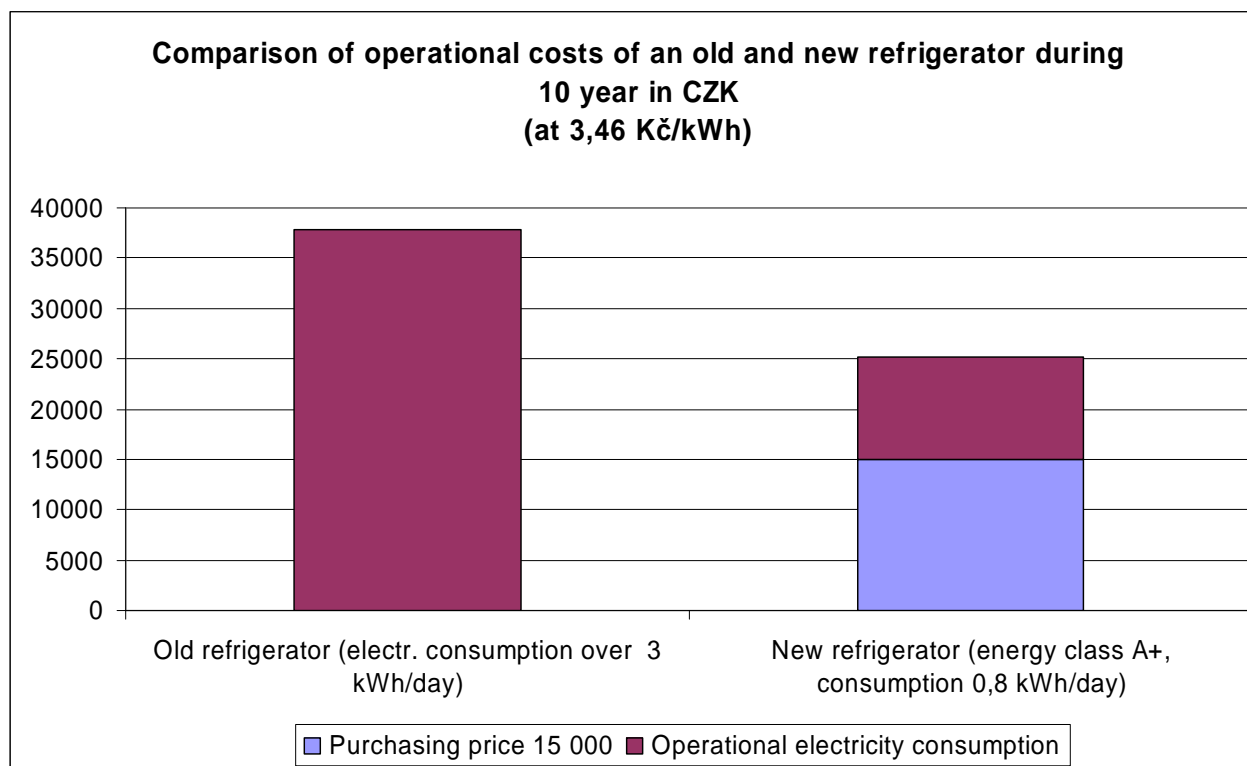
Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

•Growth of energy consumption and prices



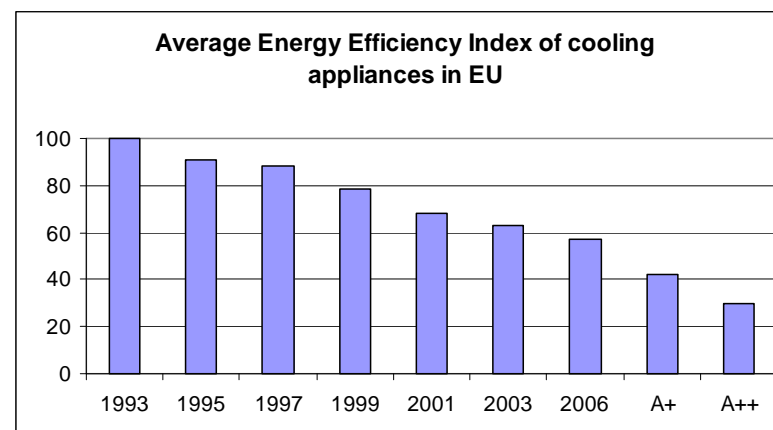
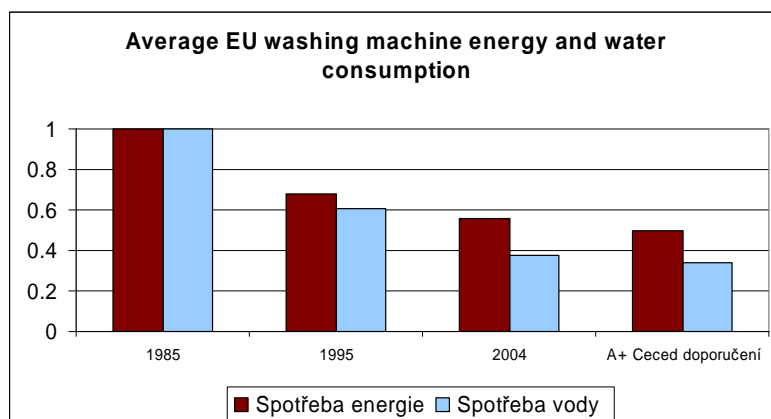
Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

- Costs of appliance operation



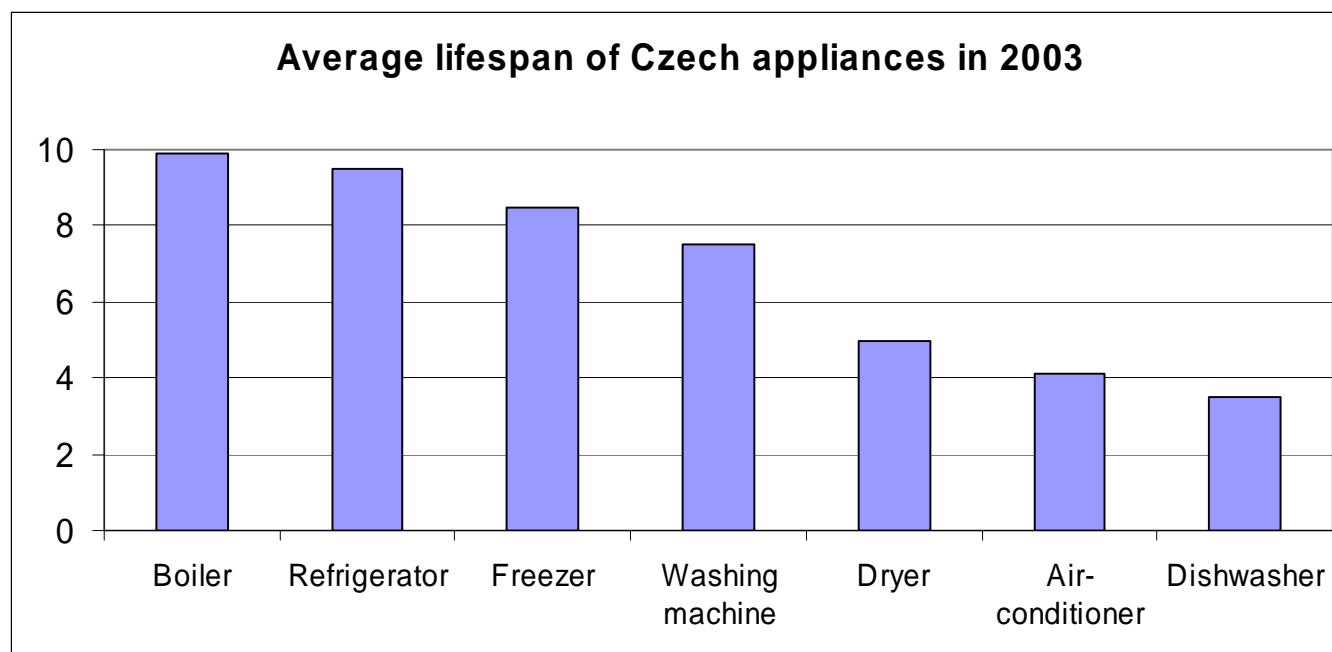
Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

- More efficient appliances on the market



Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

- Average lifespan of appliances



Why Should We Familiarize Ourselves with the Labels – Arguments for Customers

- Every B class refrigerator consumes about 2,2 more MWh of electricity than a new A++ refrigerator during a period of 21 years
- There are over 188 million appliances older than 10 years in European households
- The replacement of inefficient refrigerators and washing machines in the EU would represent energy savings of 8000 GWh electricity per year (14% of the Czech Republic's total consumption)

Summary: Energy Labelling = Legal Duty

- **First of all, labelling is in the consumer's best interest**
- **Labels and supporting documents have to be supplied by the manufacturer**
- **The retailer has to show the label and is responsible to do so for the customer**
- **Government controls label visibility and accuracy of information**

Efficient Appliances / Energy Efficiency

How to save energy at home ?

- by purchasing energy efficient appliances
- by maintaining their proper upkeep and operation

How to Save Energy at Home?

Advice to Clients:

- Refrigerators: the size of the appliance is important. 50 – 70 liters per person are recommended
- Washing machines: by lowering the temperature from 90°C to 60°C, roughly ¼ of energy can be saved
- Dishwashers: in comparison to flowing water, it saves 60% of water and 35 – 60% of energy
- Heat sources: an efficient light bulb saves 70 – 80% energy and has 6 – 12x longer lifespan

Thank You For Your Attention!

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