

Public policy tools

Thomas Guéret
IEA Workshop
“Cooling cars with less fuel”
23 October 2006

© OECD/IEA 2006



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Outline

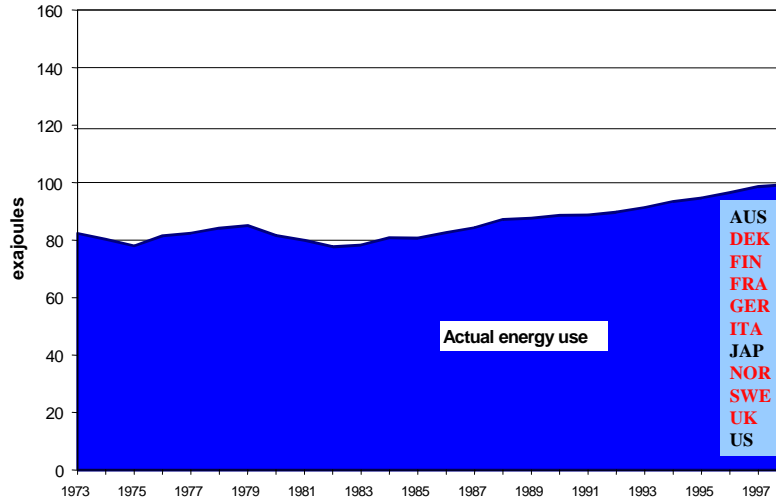
- Why energy efficiency policies
 - Energy labeling
 - MEPS – Minimum Efficiency Performance Standards
 - Voluntary agreements
- ... Among others



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Energy Demand in IEA-11

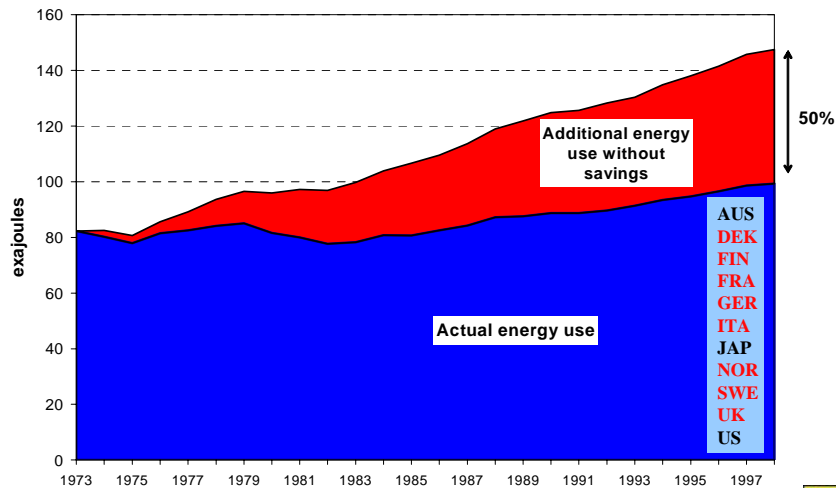


IEA-11 is a group of 11 IEA countries which have statistics available over the 30 past years.

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Energy Demand and Savings IEA -11

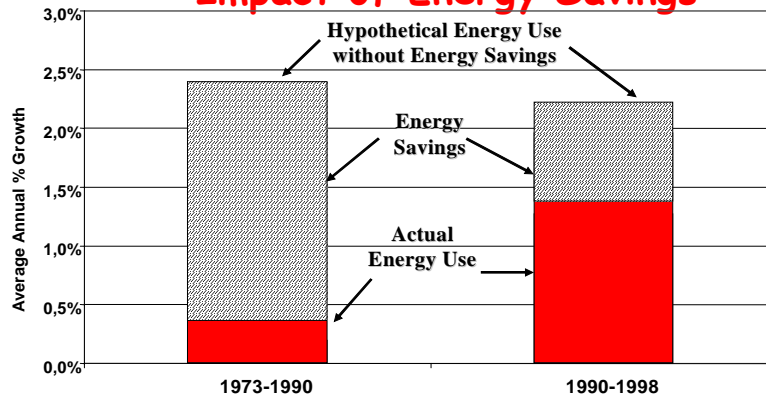


Without energy savings achieved since 1973 energy demand in 1998 would have been 50% higher

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

IEA-11 Energy Use Impact of Energy Savings



Rates of energy savings have slowed significantly after 1990, leading to rapid demand growth



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Market failures

- Lack of awareness of opportunities
- Invisibility
- Inability to compare between options
- Bundling (a secondary factor lumped in with other more dominant considerations)
- Land-lord/tenant problem (split-incentives)
- Societal and personal optimums don't always coincide



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Energy Labeling: A Policy Instrument to Promote Energy Efficient Products



Energy consumption / Consommation énergétique
898 kWh
 per year / par année

Uses least energy / Consomme le moins d'énergie
 Standard/Ordinaire

Uses most energy / Consomme le plus d'énergie
 Model number: LAT800 & B800 SERIES



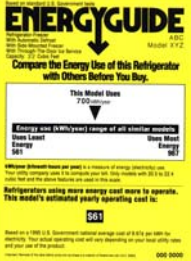
Canada



COMPARATIVE ENERGY CONSUMPTION
 700



Australia



Compare the Energy Use of this Refrigerator with Others Before You Buy.

This Model Uses 700 kWh/year

Other Models Use 881 kWh/year

Refrigerators using more energy cost more to operate. This model's estimated yearly operating cost is \$66.

Based on a 1995 U.S. Department of Energy survey, the average refrigerator uses 200 kWh per year. This model uses 700 kWh per year, which is 3.5 times the average. Actual energy use will vary depending on your local utility rates and your use of the product.

900 0000



USA



Japan

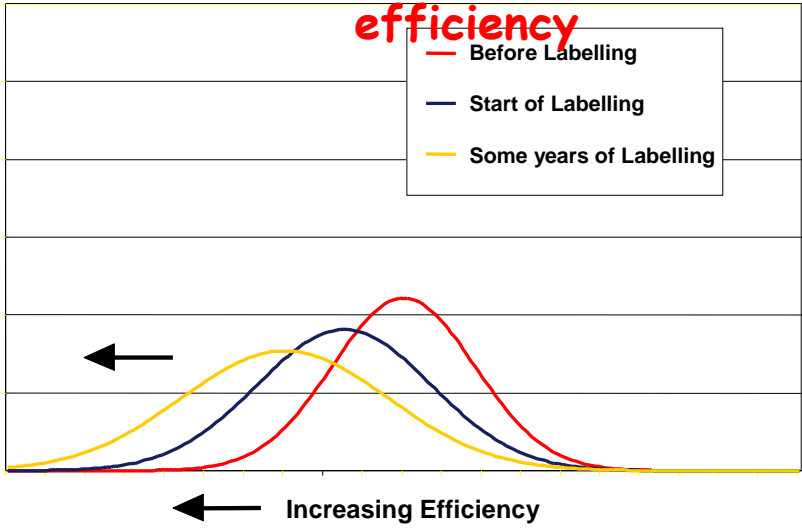
Energy Manufacturer Model	Logo ABC 123
More efficient	
A	
B	
C	
D	
E	
F	
G	Less efficient
Energy consumption kWh/year (Based on standard test results for 24h)	350
Actual consumption will depend on how the appliance is used and where it is located.	
Fresh food volume l	200
Frozen food volume l	80
Noise (dB(A)re 1 pW)	40
Further information is contained in product brochures.	
Based on EN 505 1995 Refrigerator Label Directive 94/CEC	

European Union

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Energy labelling: in theory encourages higher appliance efficiency

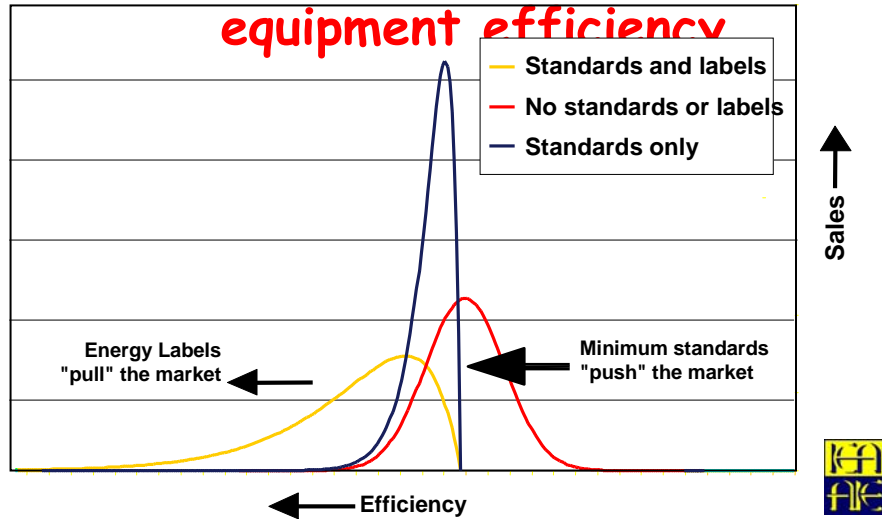


INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

policy measures to raise

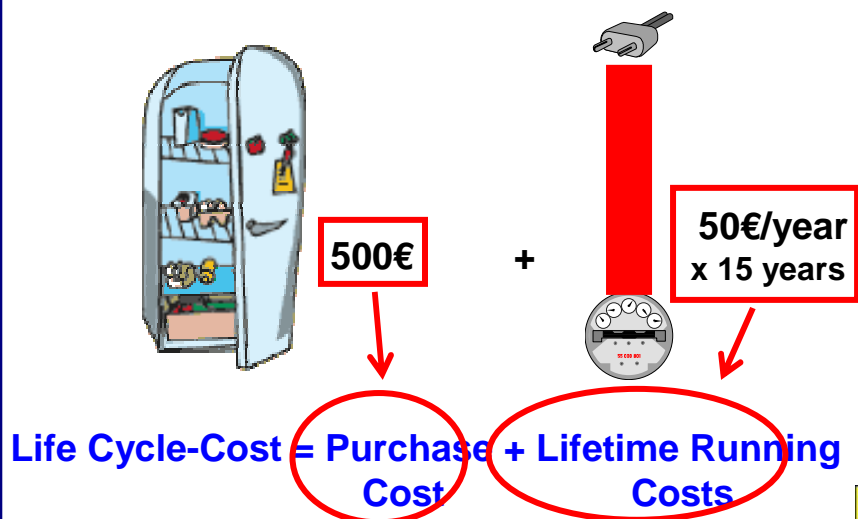
equipment efficiency



INTERNATIONAL ENERGY AGENCY

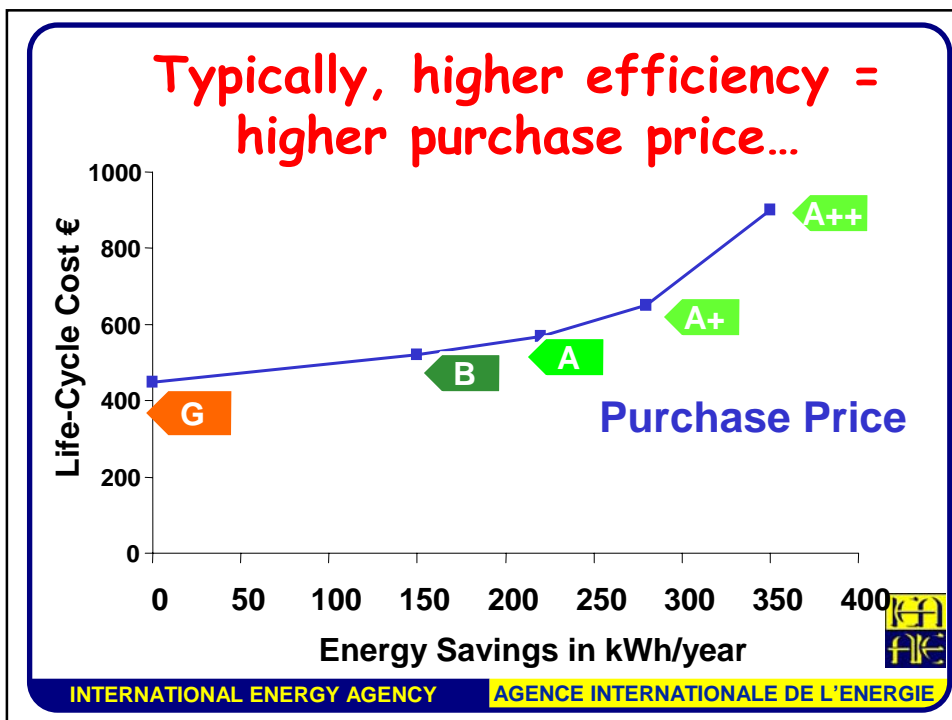
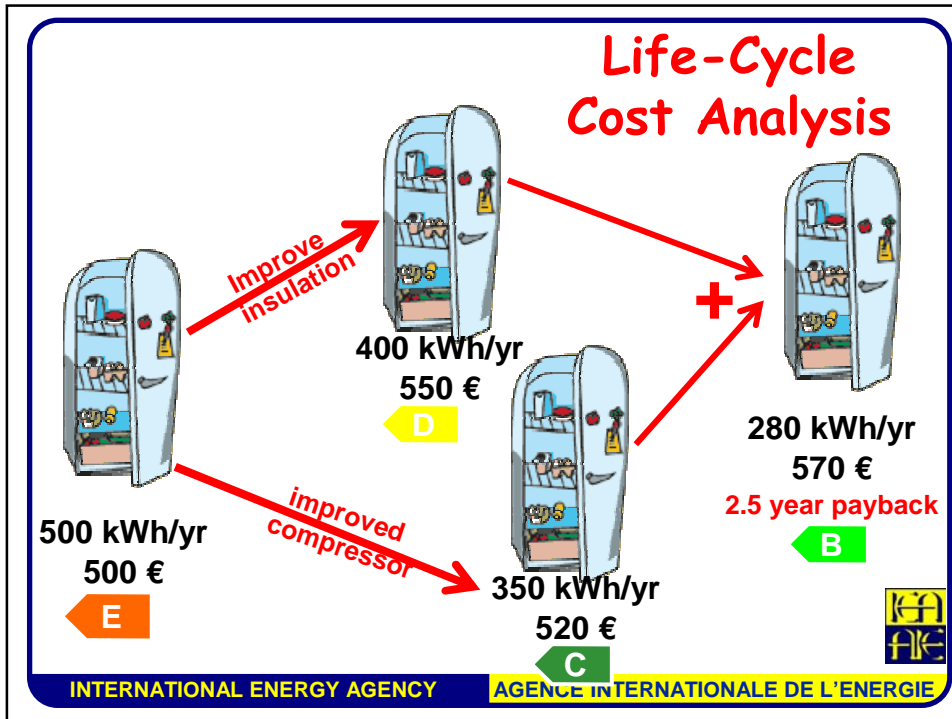
AGENCE INTERNATIONALE DE L'ENERGIE

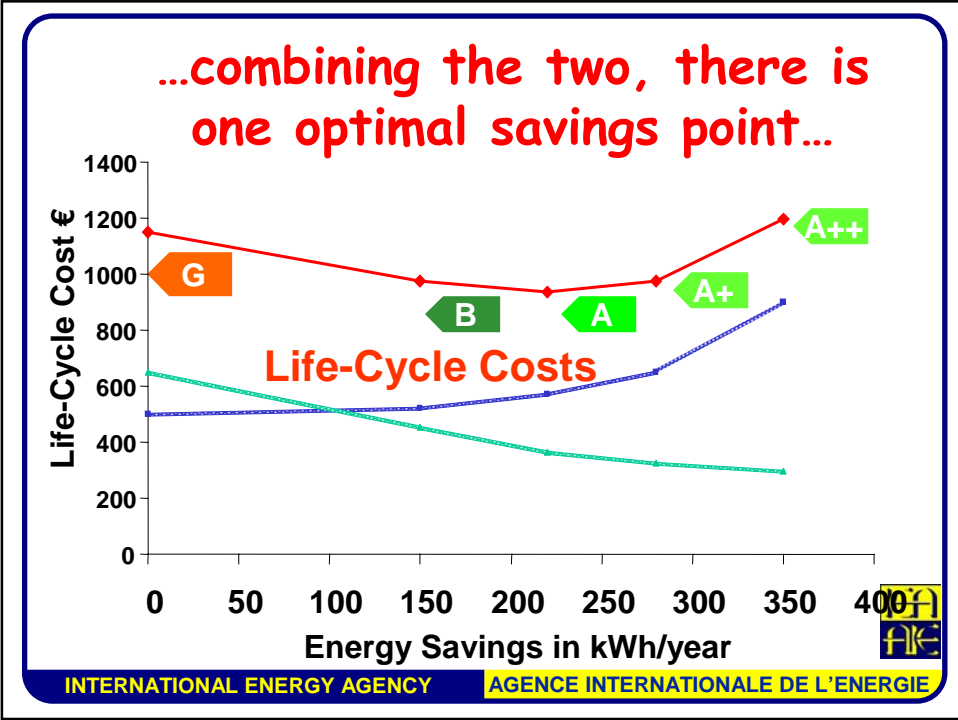
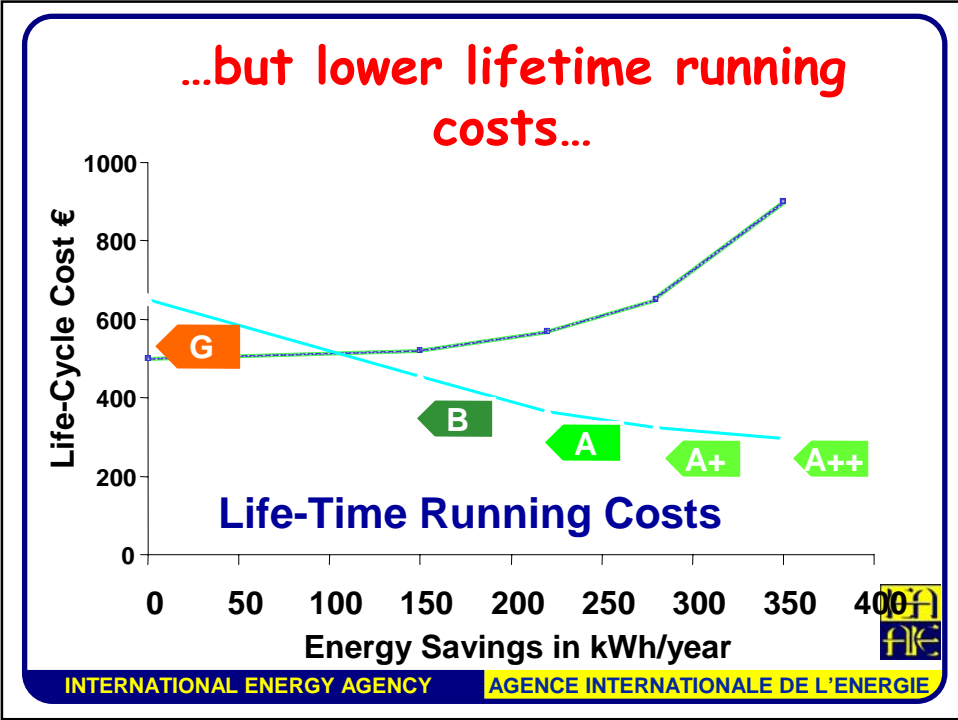
What is the least life cycle cost?

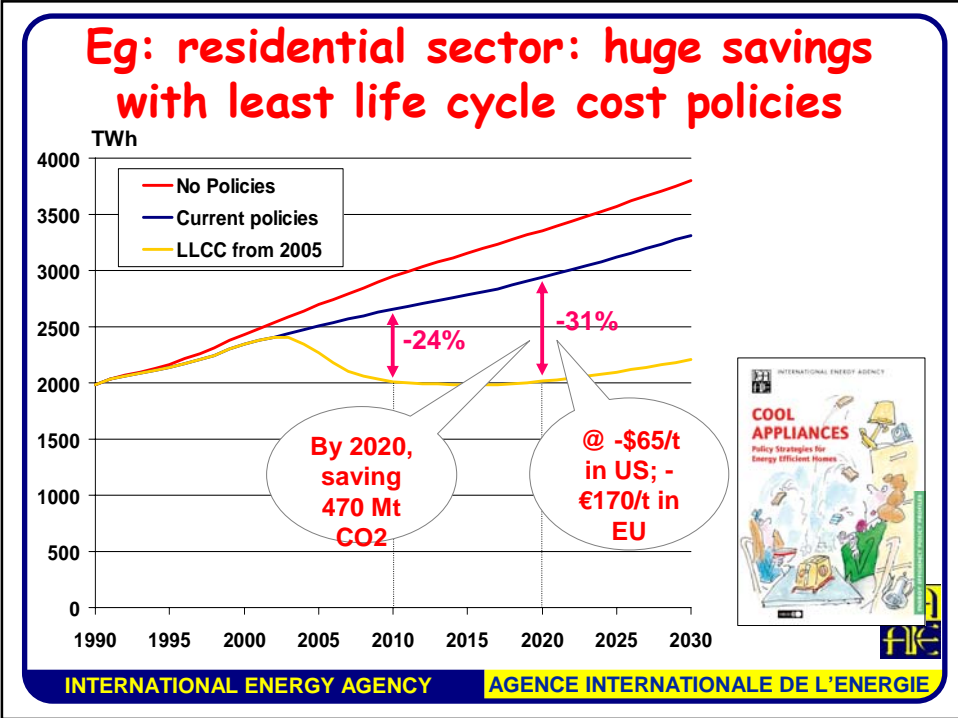
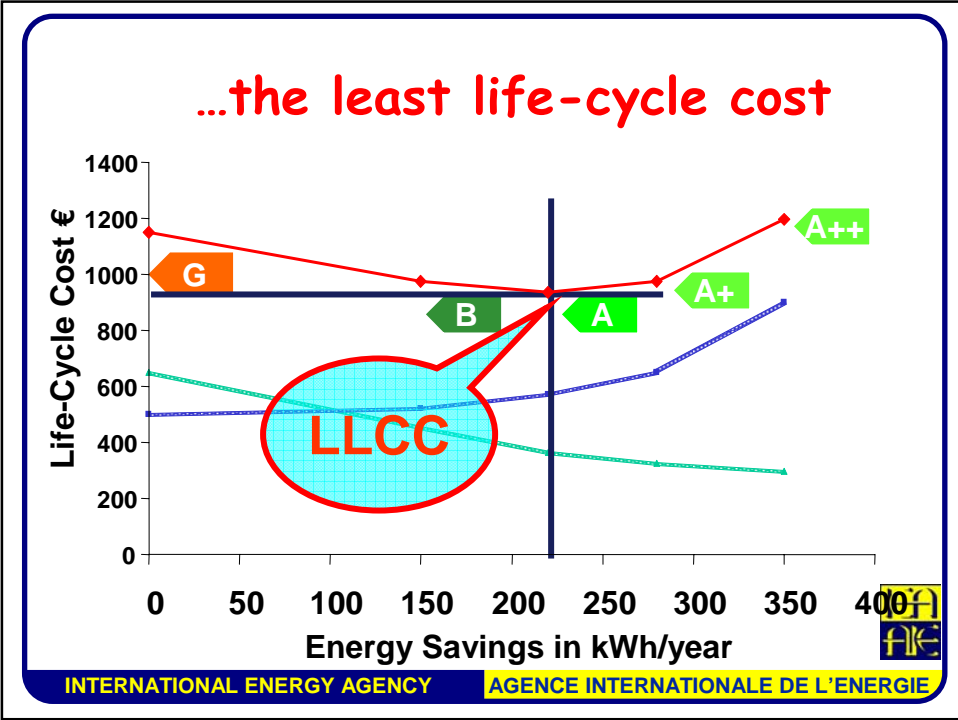


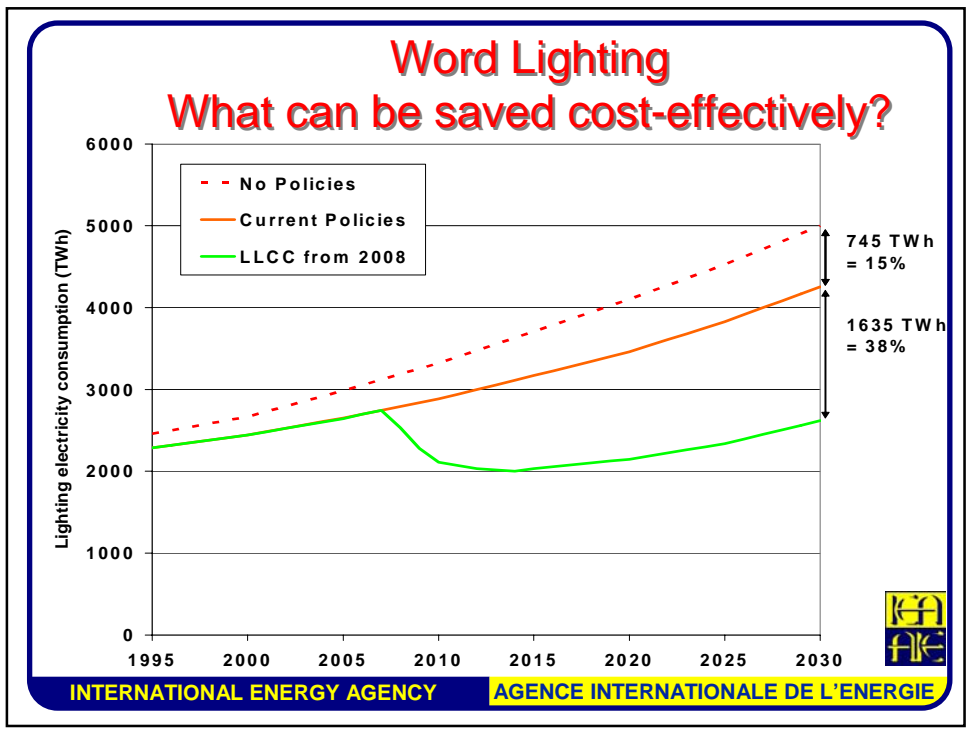
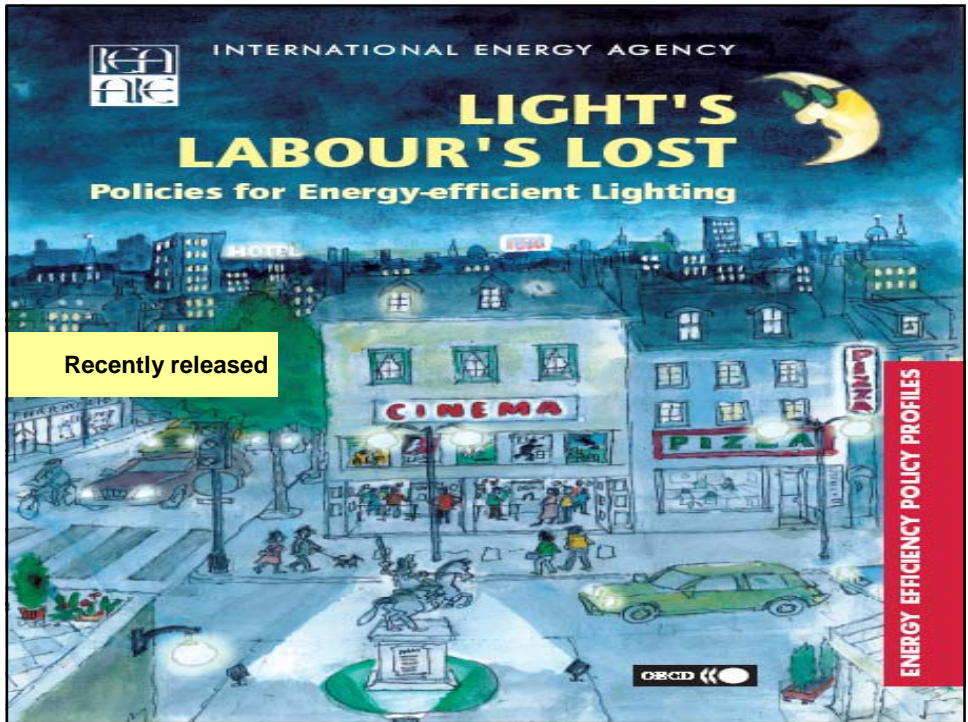
INTERNATIONAL ENERGY AGENCY

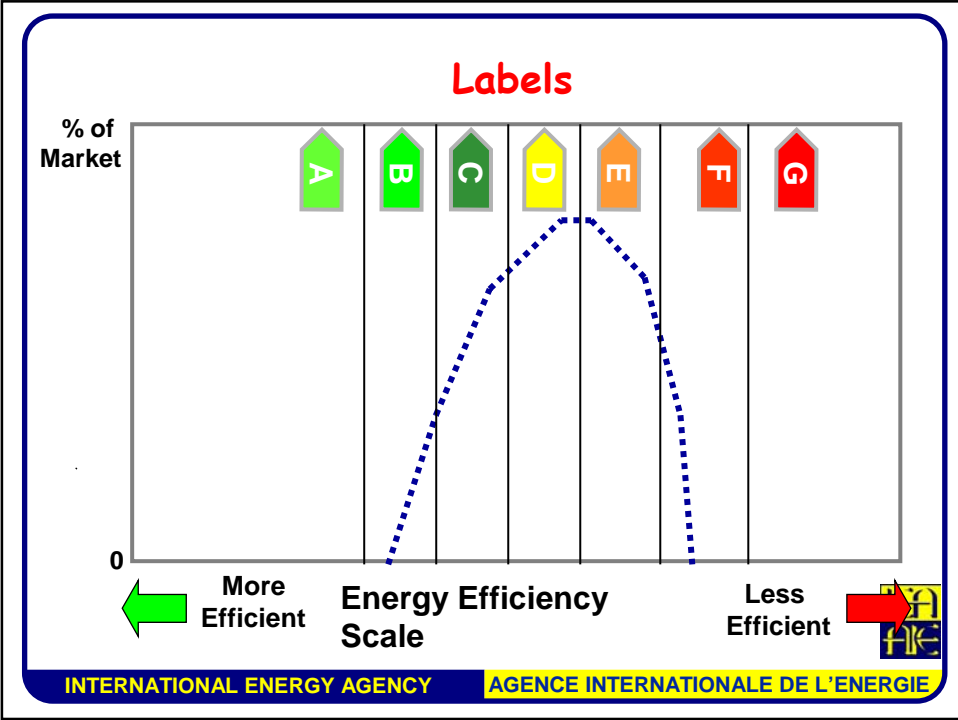
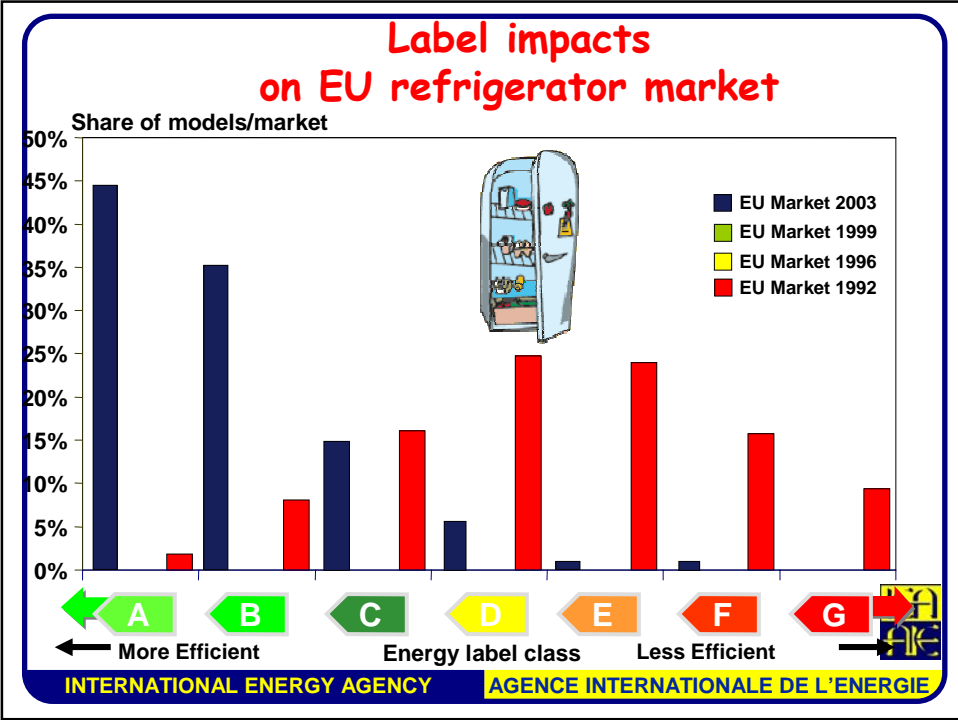
AGENCE INTERNATIONALE DE L'ENERGIE

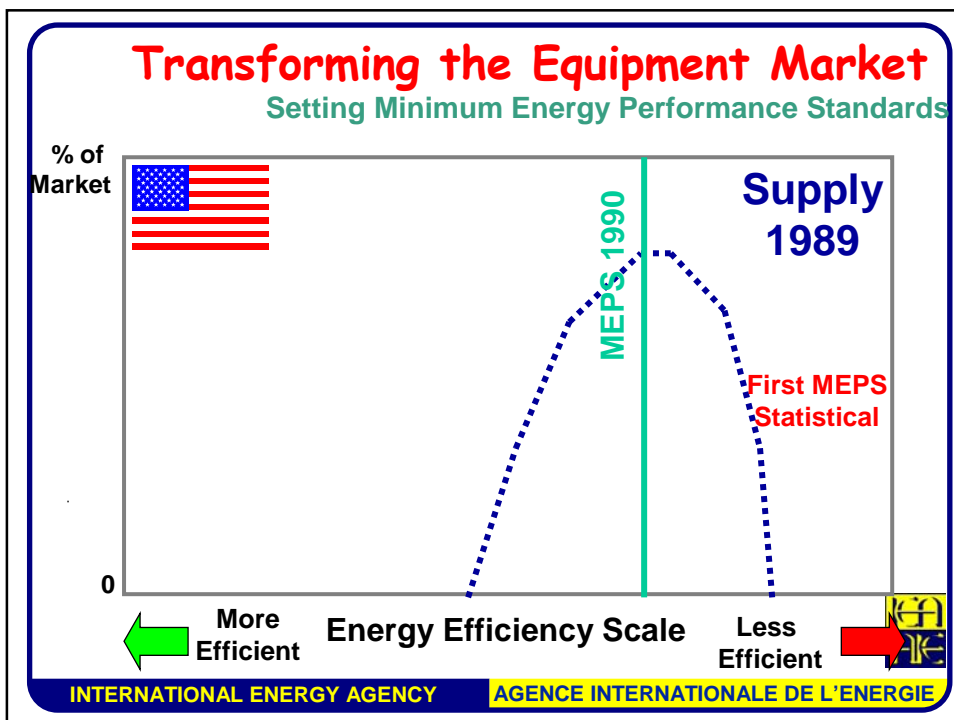
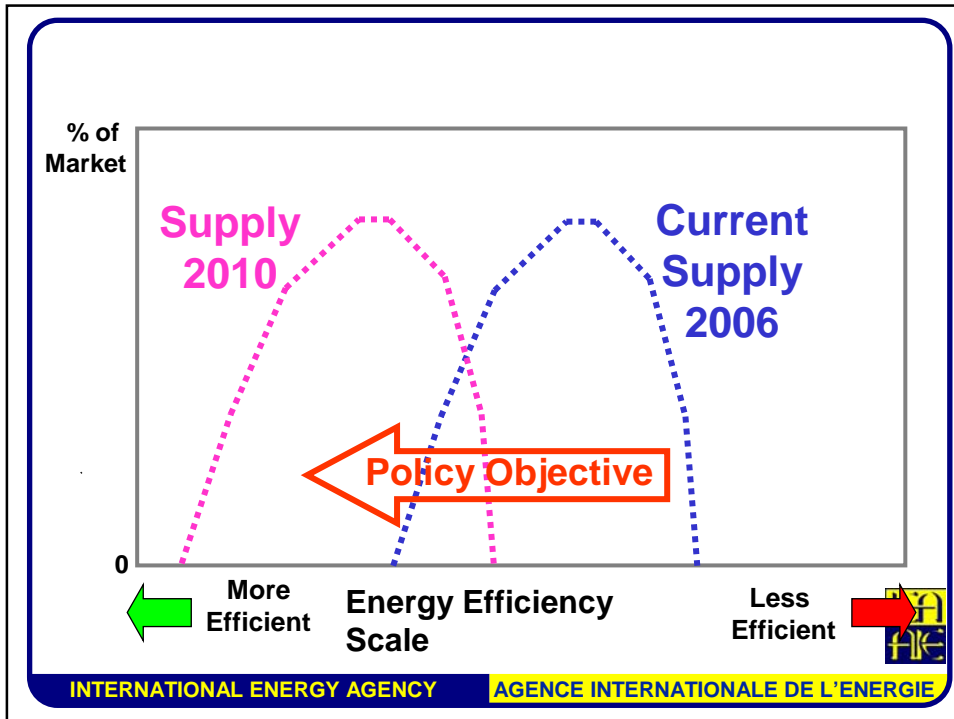






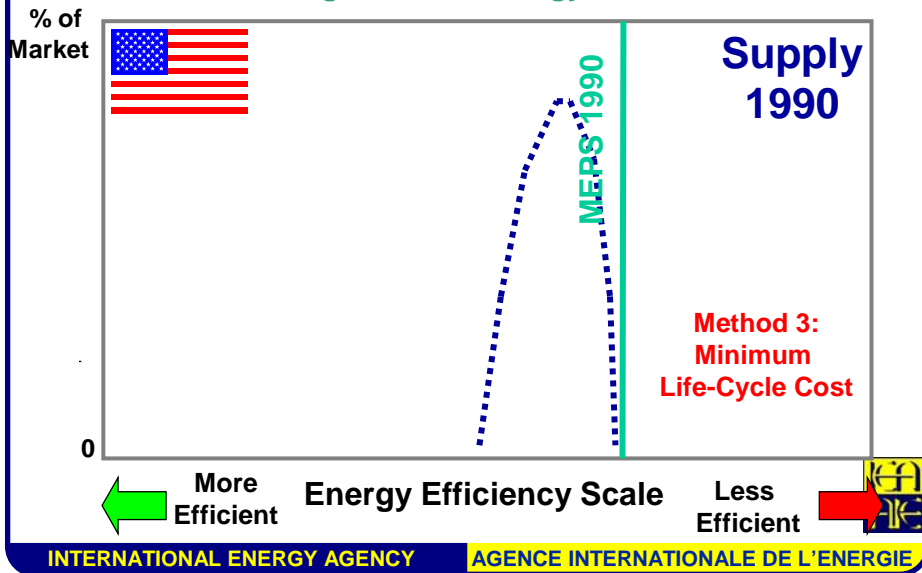






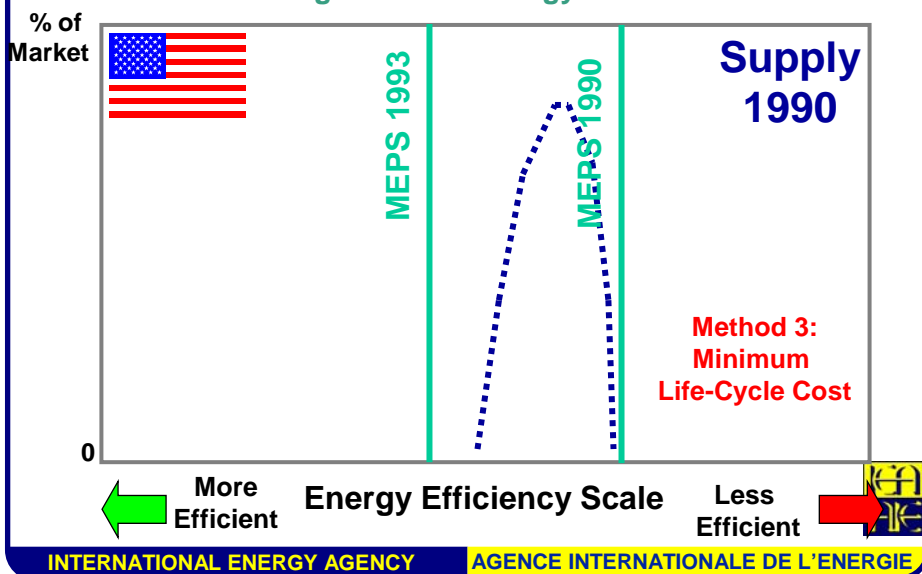
Transforming the Equipment Market

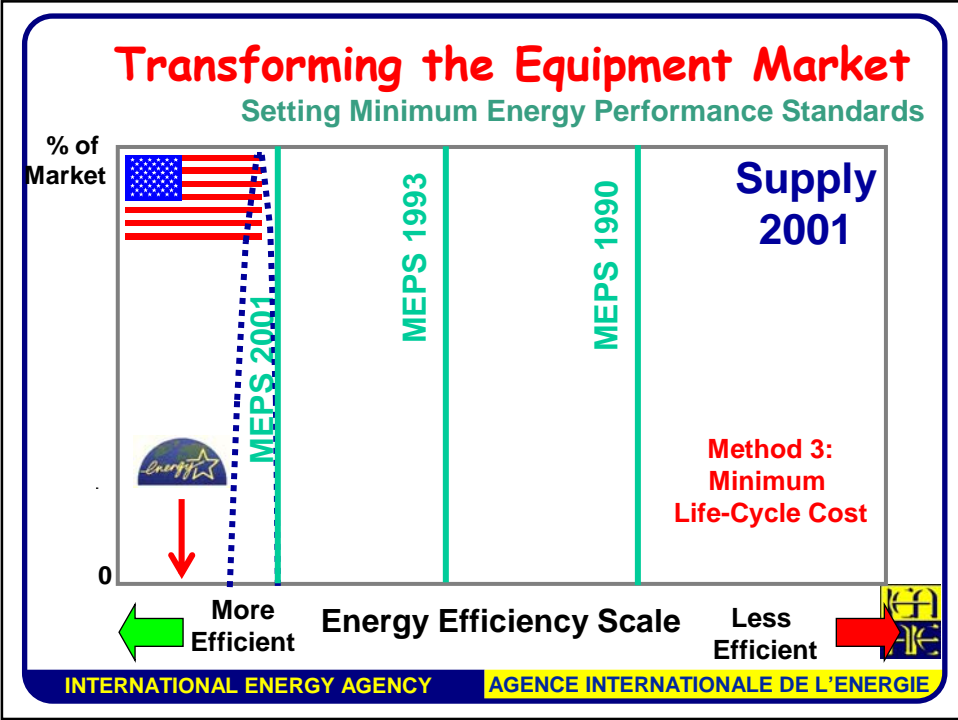
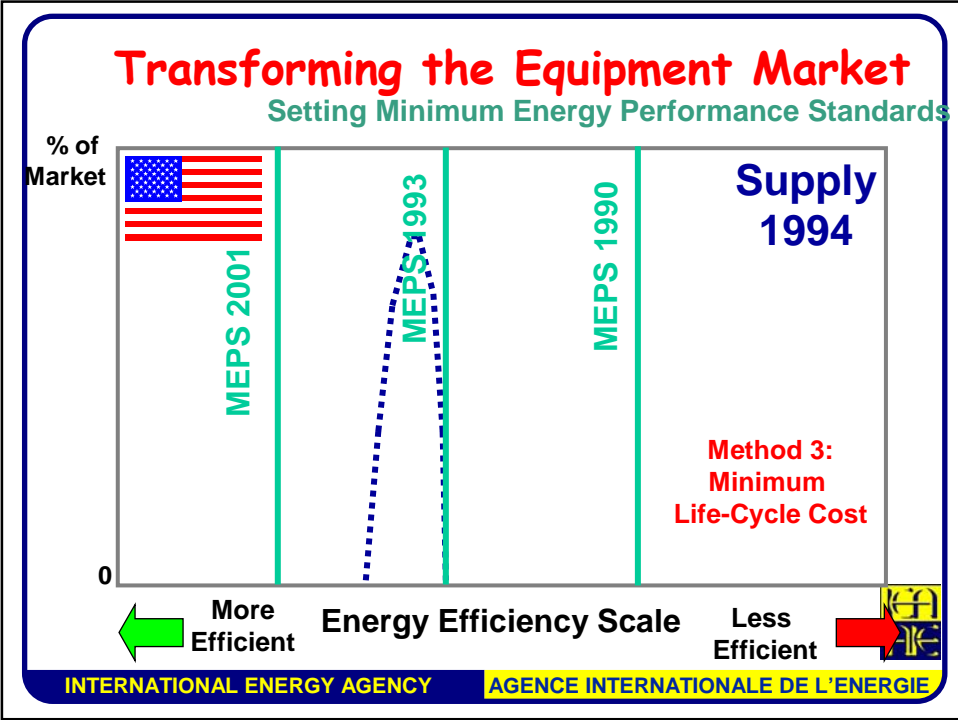
Setting Minimum Energy Performance Standards



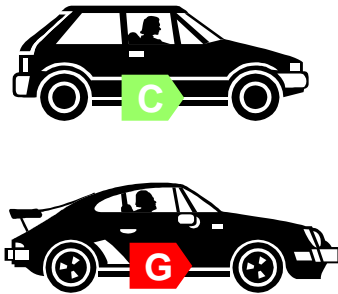
Transforming the Equipment Market

Setting Minimum Energy Performance Standards





European Car Label



Energie		Personenauto
Fabrikant Model	Merk X Model Y 3-drs hatchback handschakeling Benzine	
Brandstof		
Brandstofverbruik gemeten volgens de test van de typegoedkeuring	7,2 liter / 100 km = 1 liter op 13,9 km	
Zuinigig		
Onzuinigig		
CO₂-uitstoot CO ₂ is het broeikasgas dat bij de werkdrijfe uitlaatsonderling de belangrijkste rol speelt.	173 gram / km	
Jaar van toelating	2001	

In application of EU Directive 99/94/EC, Several Countries (Denmark, France NL, BE...) have selected the above format for Car Labelling

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE



Labelling cars or labelling components?



Energie		Logo ABC 123
Land-Verbruik		
Hog-Verbruik	XYZ	
Land-Verbruik		
Hog-Verbruik	XYZ	
Land-Verbruik		
Hog-Verbruik	XYZ	

is just an example to te the concept. Energy Star has no plans to create such a program.

INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE



**A familiar example
of the strategy of
endorsing
components**

**Would there be an
"Efficient Mac
Inside" sticker?**



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE

Voluntary agreements

- **Measurement tools to be defined**
- **Set of target and schedule**
- **Monitoring**
... are the same tools than for label
- **Regulation can be seen as an
ultimate policy to secure market
progress**



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE