

Energy Efficiency Standards and Labeling in Japan

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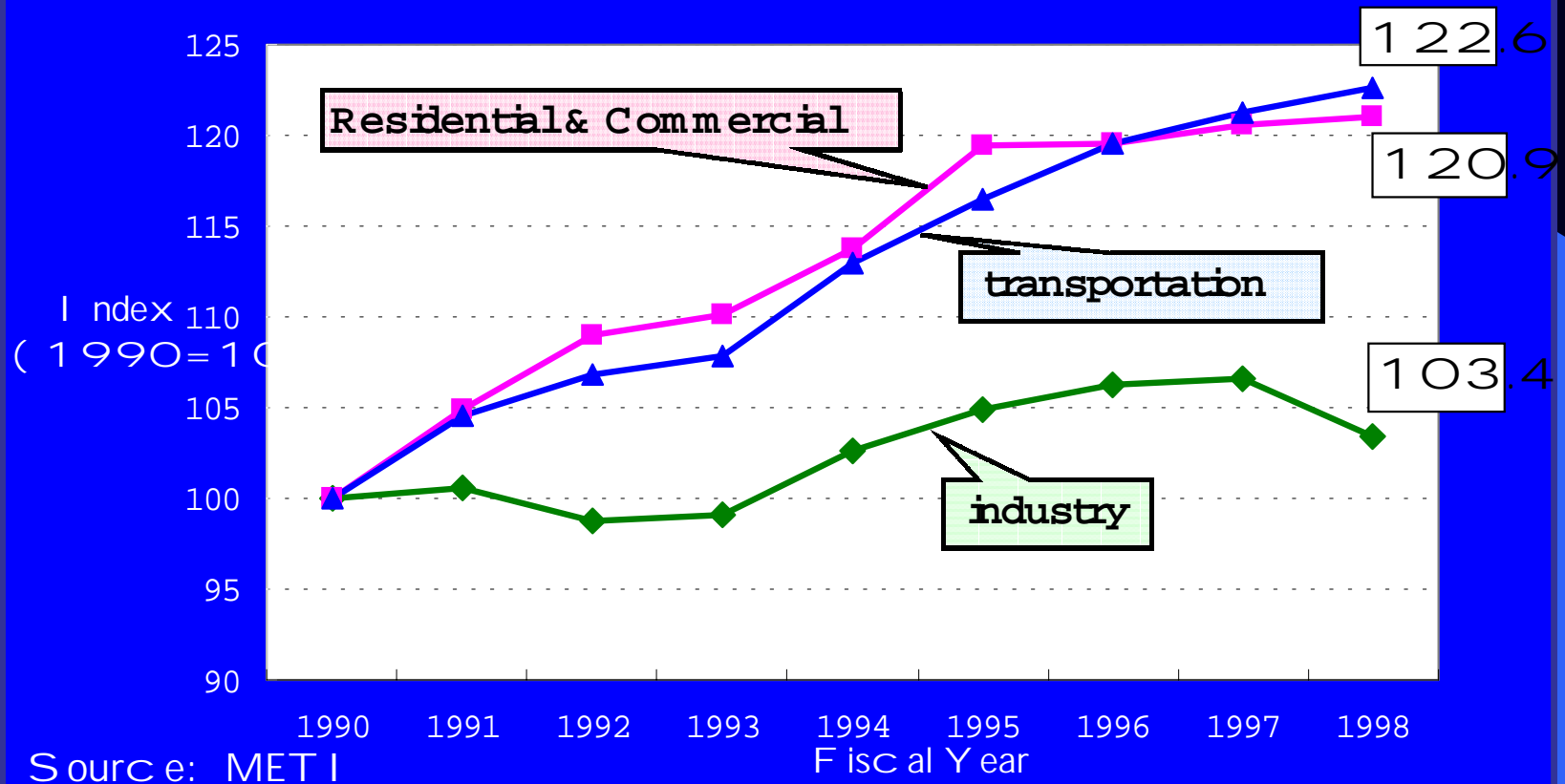
Topics

1. Overview of trends in energy consumption by sector
2. Energy conservation law in Japan
3. Policy measures for appliances and equipment
4. Top Runner Program
5. Energy labeling in Japan
6. Impact of Top Runner program
7. Future developments



1. Overview: Trends in Energy Consumption in Japan by sector

Trends in Energy Consumption



2. Energy Conservation Law in Japan

1) Legal System of Energy Conservation

- 1947 MITI put into force “regulation of heat management”
focused on coal management
- 1951 “Heat Management Law”
- 1979 “Law of Rational Use of Energy”
- 1993 Addition of Numerical Judgment Guideline for Factories, Buildings,
Machinery-Standard Values and Target Values
- 1999 Enhancement of Judgment Guideline for Factories, Buildings,
Machinery, 2nd Category designated factory system

2. Energy Conservation Law in Japan

2) Legal System for Rational Use of Energy

Measures for Factories

Obligations of Enterprises

1st Category Designated Factory

- Appointment of an Energy manager
- Submission of Future Improvement Plan
- Submission of Periodical Reports

2nd Category Designated Factory

- Appointment of an Energy manager
- Obligation to keep records of energy consumption
- Duty to Attend Training Course

2. Energy Conservation Law in Japan (Continued)

Measures for Buildings

Obligation of Building Owner

Guidance and advice provided to Building Owners

Announcement of Guideline for Design and Construction to Building Owners

Regulation of Special Buildings

Guidance and Advice regarding Building Materials

Measures for appliances and equipment

Obligation of Manufacturers and Importers

Top Runner Program

12 Items (Air Conditioner, etc)

3. Policy measures for Appliances and Equipment

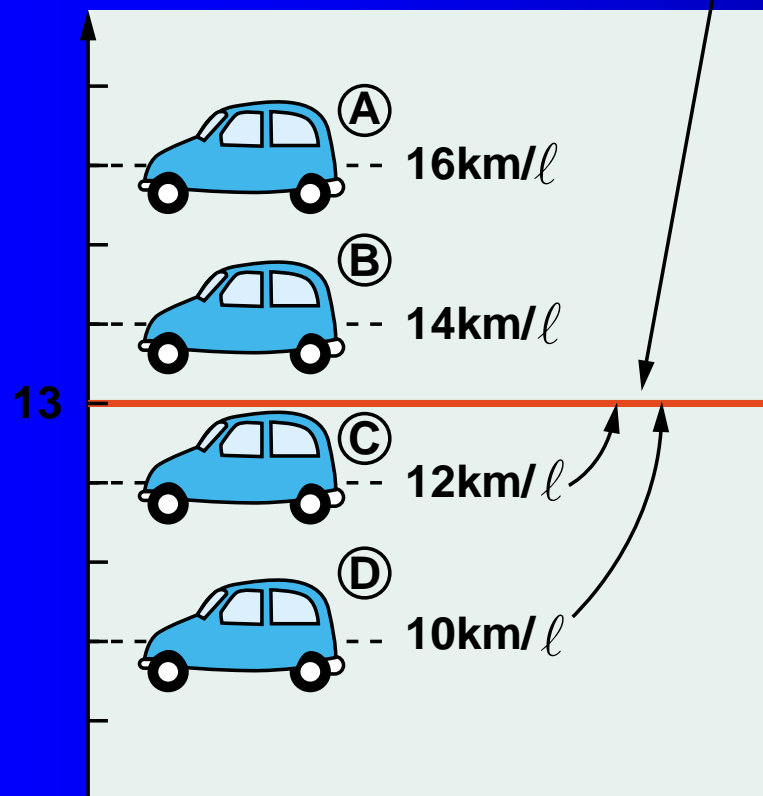
- Efforts by Manufacturer
- Standards for Judgment
- Product Labeling

4. Top Runner Program –Concept-

Old energy efficiency standard

Fuel efficiency
(km/L)

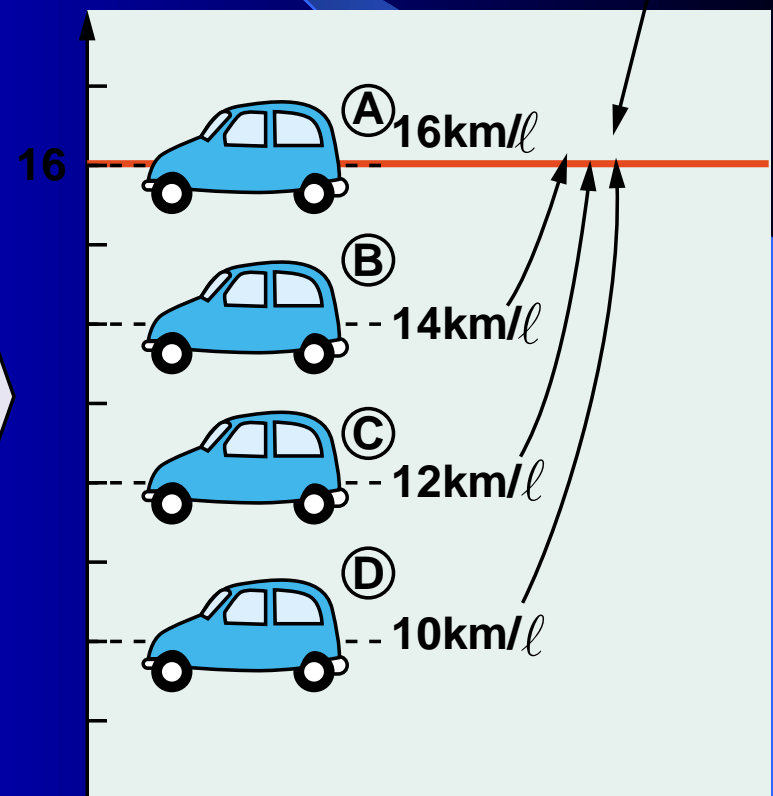
Old energy
efficiency standard
(more than average)



New energy efficiency standard

Fuel efficiency
(km/L)

New energy efficiency
standard
((A) is the top runner.)



Top Runner Program – Target Items

Product categories under Top Runner Program

Items	Target year	Projected energy reductions
Air conditioners (for use in both cooling and heating)	2004 (partially 2007)	63%
Television receivers	2003	16%
Video cassette recorders	2003	59%
Fluorescent lamp luminaries	2005	17%
Copiers	2006	30%
Computers	2005	83%
Magnetic disk drives(hard disks)	2005	78%
Gasoline-fueled passenger cars	2010	23%
Gasoline-fueled trucks	2010	13%
Diesel-powered passenger cars	2005	15%
Diesel-powered trucks	2005	7%
Electric refrigerators and freezers	2004	30%



5. Energy Labeling

- **What is energy labeling**

Officially gazetted on August 21, 2000. Voluntary measure based on JIS test methods. Generally shown in product catalogues, not necessarily on actual product.

- **Products Covered**

Air Conditioners, Television receivers, fluorescent lamp luminaries, Electric refrigerators, Electric freezers

- **Information shown on the label**

Top Runner target year, Achievement rate relative to Top Runner target, Annual energy consumption

Method of Indication

Case 1; Target still not achieved



Achievement rate of energy
conservation standards

98%

Orange

White

Case 2; Target achieved



Achievement rate of energy
conservation standards

100%

Green

White



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***The label size differs depending on the space available for indication etc.**

5.Labeling - Energy Star Program -



METI



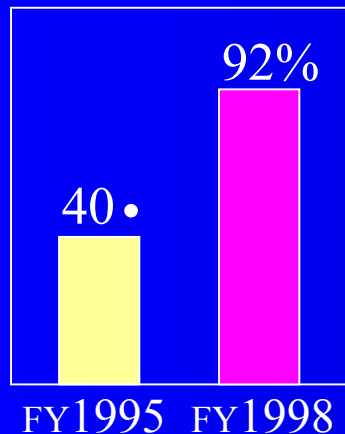
EPA

- **Based on Letter of Intent (LOI)**
between Japan (METI) and US (EPA)
- **Started in October 1995**
- **Voluntary program**
- **Office equipment is covered.**
- **Reciprocally recognized system**
(Sharing data on registered manufacturers and products)

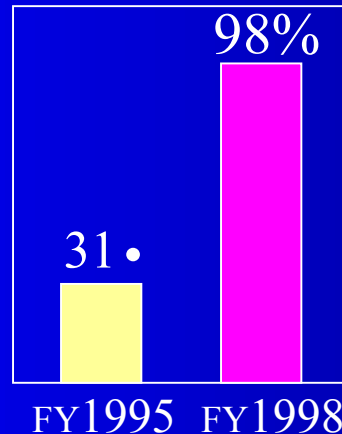


The Market Share of Energy Star-compliant Products in Japan

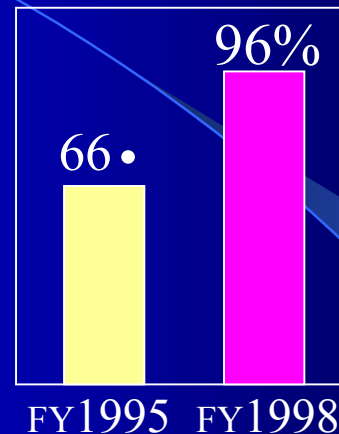
COMPUTERS



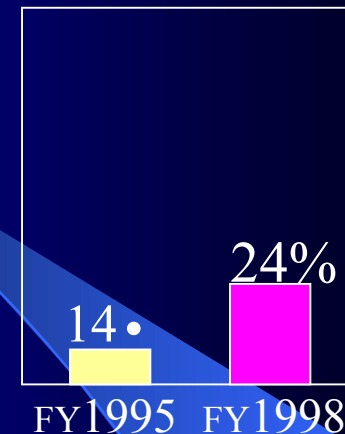
MONITORS



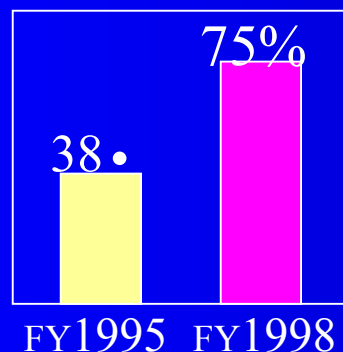
PRINTERS



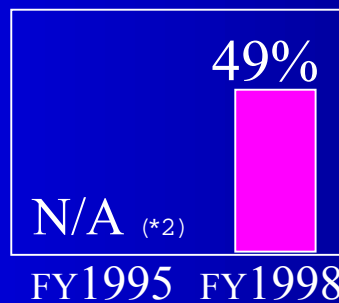
FAX MACHINES



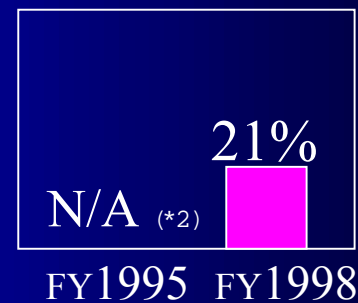
COPIERS



MULTI-FUNCTION DEVICES



SCANNERS



(*1) The market shares (penetration rate) is the ratio of Energy Star-compliant products to all products manufactured by the registered manufacturers in the years specified.

The data are obtained through surveys conducted by ECCJ in FY 1996 and FY 1999.

(*2) Multi-function Devices and Scanners have been covered since February 1999.



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6.Impact of Top Runner Program

Expected Energy Savings from Top Runner Program

	Measures	before Top Runner	after Top Runner	Projected energy reductions
Residential & Commercial	strengthen improvements to appliance and equipment efficiency	4,5 million Kl/year	5,4 million Kl/year	Airconditioner 16% → 63% Electric refrigerators 24% → 30% Fluorescent lamp luminaries 8% → 16% etc.
Transportation	strengthen improvement of fuel consumption efficiency	4,5 million Kl/year	5,4 million Kl/year	Gasoline vehicles 20% → 23% etc.
				*Kl = kiloliter = , ³

7.Future Developments

Residential & Commercial Sector:

1. Top Runner Program

2. Energy Labeling

Consideration is being given to the expansion of the scope of Top Runner and/or energy labeling to cover an additional 8 product types

(Transformers, Automatic Vending Machines, Space Heaters, Gas Water Boilers, Oil Water Boilers, Cooking Appliances, etc.)



7.Future Developments (Continued)

Transportation Sector:

Top Runner Program for Diesel powered freight vehicles (more than 2.5 tons)

