

Global Warming Prevention Initiatives of the Matsushita Group and the Electrical/Electronic Industry

(Summary : Translated by Secretariat)

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Matsushita Electric Industrial Co., Ltd.



1. Activities of the Electrical / Electronic Industry

(1) Promotion of a Voluntary Action Plan for Global Warming Prevention

In 2010, CO₂ emissions of electrical/electronic industry will be almost twice of that of 1990. However, considering that net production output will increase almost 3 times, CO₂ emissions per basic unit of net production output will decrease by 34%. (New target is 35% improvement over FY 1991)

Although since 1990, CO₂ emissions in Device sector have been increasing, CO₂ emissions per basic unit have decreased by half in recent 10 years.

(2) Initiatives for Achieving an Energy Conservation Society

Although population of Japan has been decreasing, the number of households has been increasing. The decrease in CO₂ emissions per households is the result of promoting energy-efficient home appliances such as refrigerators and air-conditioners.

2. Activities by the Matsushita Group

We have been promoting environmental management through Green plan 2010 announced in 2001. The following three prioritized activities have been spread out since October 2007.

(1) “eco ideas” for Manufacturing

We regard all processes from product-planning to recycling as manufacturing. By improving productivities, we are trying to reduce CO₂ emissions to the level of the year 2000 by 2010.

(2) “eco ideas” for Products

We use the term “creating values for a new lifestyle” to mean improving the quality of life while minimizing environmental impact. We are targeting to reduce CO₂ emissions to 40% by improving product functions twice.

In the efforts to promote energy-efficiency, we are trying to develop fundamental technologies, black-box technologies.

(3) “eco ideas” for Everybody, Everywhere

We believe environmental information disclosure to be essential and we have been advancing eco-ideas through various media ahead of the times. Also our employees have been promoting “Love the Earth (LE)” campaign as single citizens.

For the global communication of LE campaign, we are promoting eco-ideas in Matsushita plants in China targeting over 60,000 employees. One of those efforts can be seen in Panasonic’s declaration as an Environmentally Contributing Enterprise.

Global Warming Prevention Initiatives
of the Matsushita Group and
the Electrical/Electronic Industry

eco
ideas



February 14, 2008

Nobukazu Sugano

Matsushita Electric Industrial Co., Ltd.

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**Activities of the Electrical/
Electronic Industry**

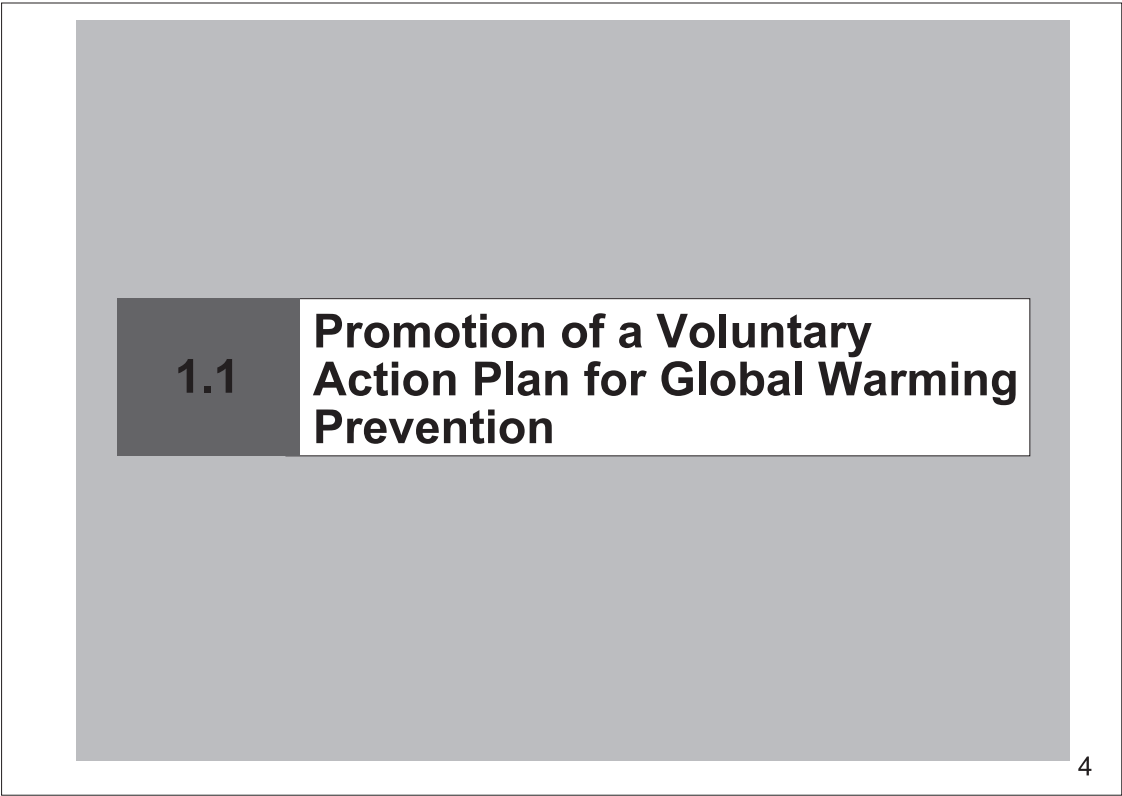
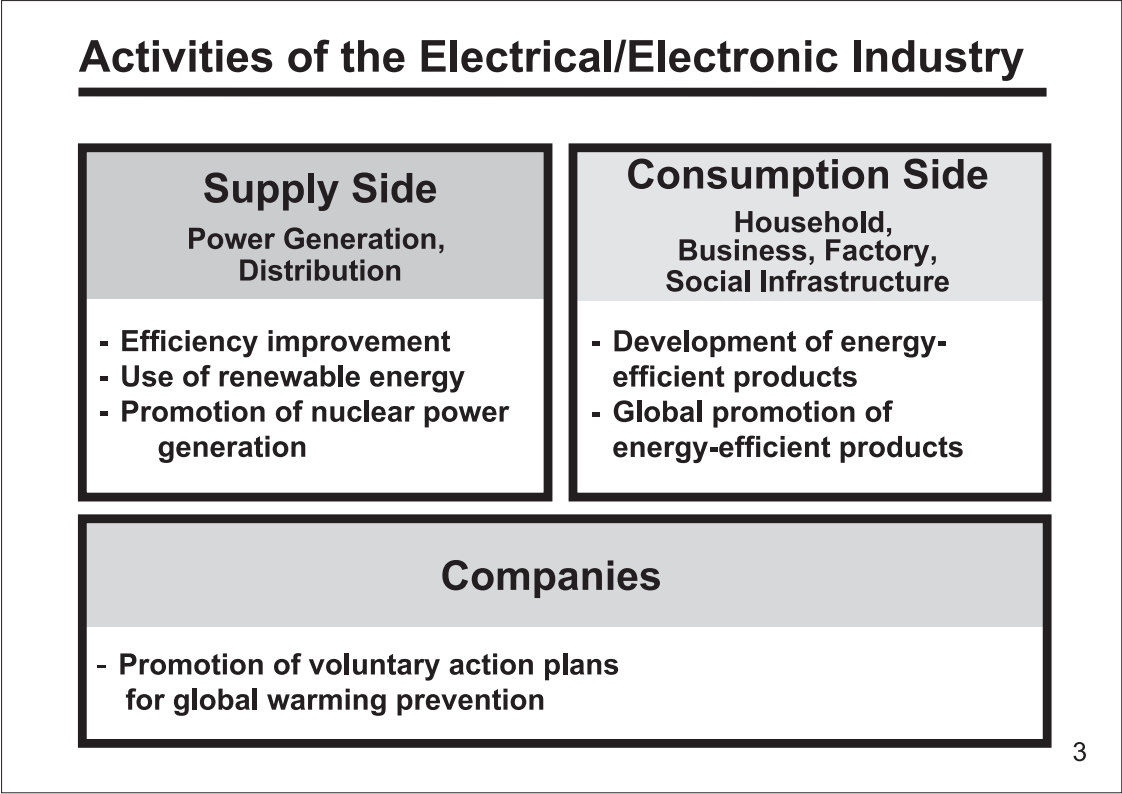
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**Promotion of a Voluntary
Action Plan for Global Warming
Prevention**

1.2

**Initiatives for Achieving an
Energy Conservation Society**

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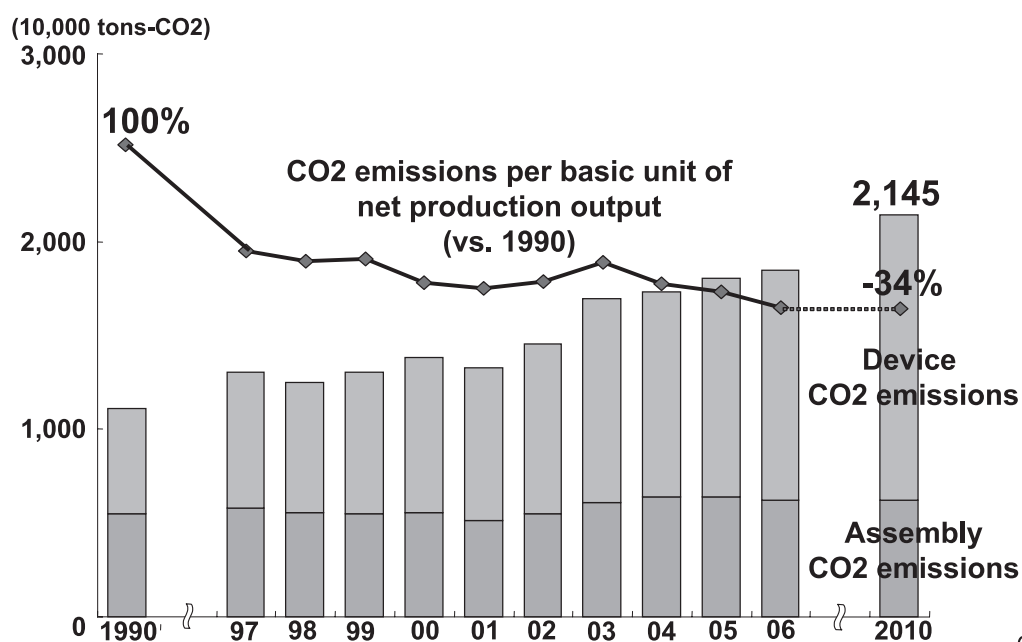


Current State of Voluntary Action Plans for Global Warming Prevention

FY	FY1991	FY2007		FY2011	
Nominal Production [trillion yen]	34.3	42.0	122%	51	147%
Deflator	1.00	0.486		0.502	
Net Production Output [trillion yen]	34.3	86.4	252%	101	294%
CO2 Emissions [10,000 tons-CO2]	1,112	1,846	166%	2,145	193%
Net Production Output per Basic Unit	0.324	0.214	-34%	0.213	-34%
New target: 35% improvement over FY1991					

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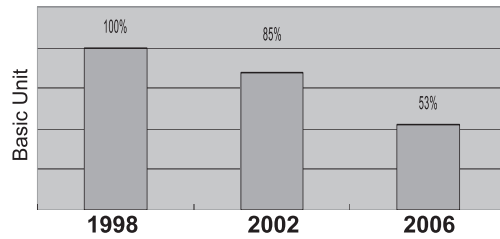
CO2 Emission by Manufacturing Activities: Results and Forecast



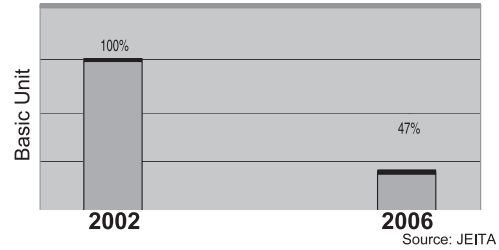
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Energy Conservation in Device Production and the Best-Location Production

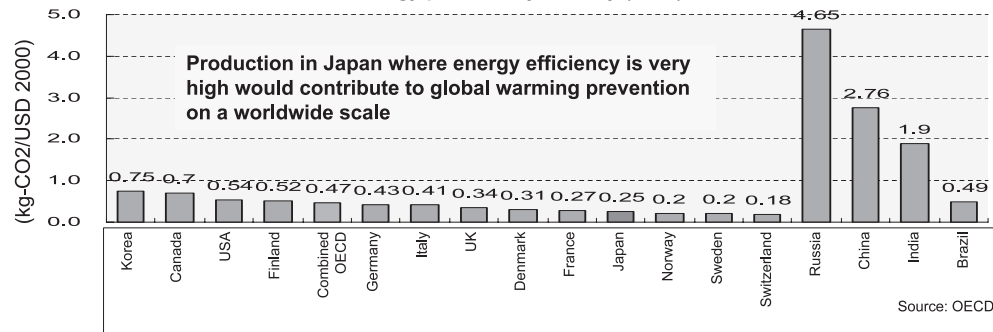
■ CO2 emissions per area of manufactured LCD panels



■ Comparison of CO2 emissions per equipment of manufactured PDP panels in the old and new factories



■ CO2 emissions from consumed energy per GDP by country (2004)



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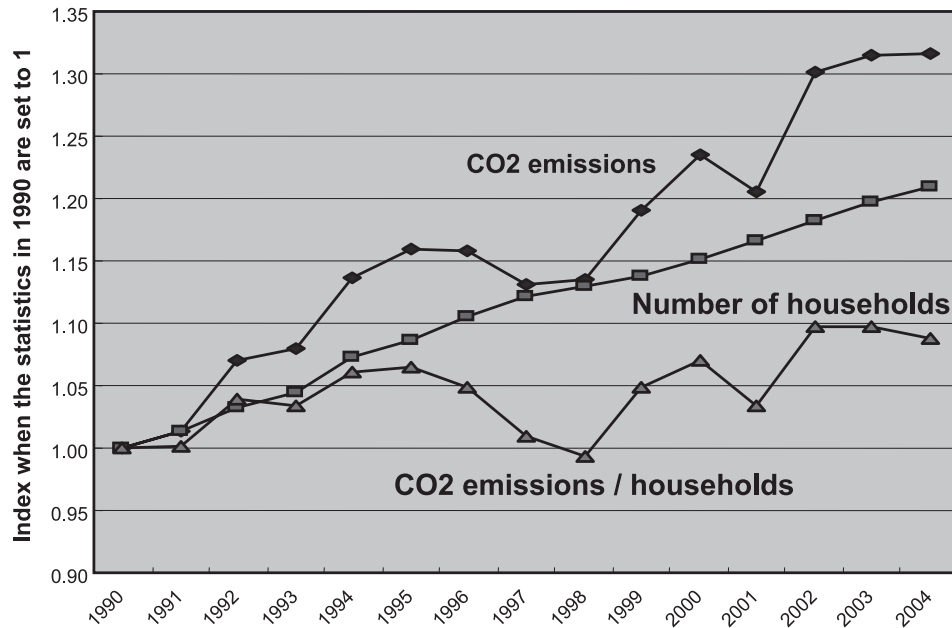
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Initiatives for Achieving an Energy Conservation Society

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CO2 Emissions by Households

CO2 Emissions and Number of Households

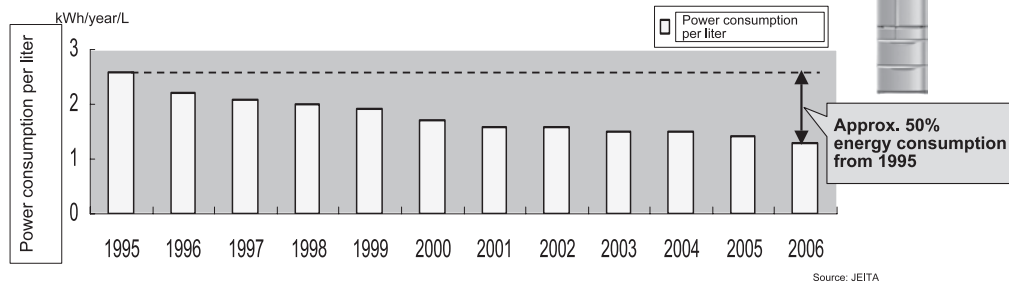


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CO2 Reduction Effects of Energy-Efficient Products

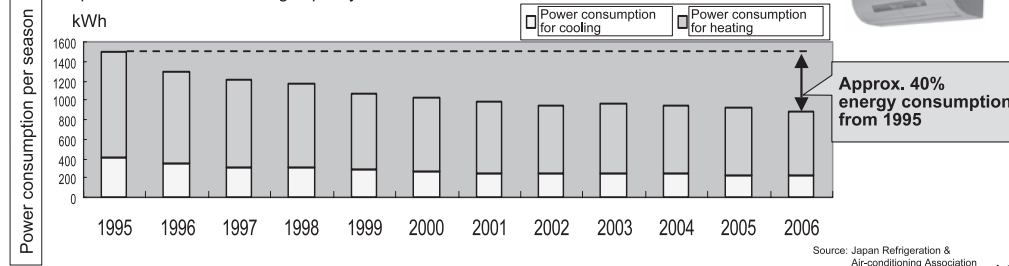
Reduction of power consumption per liter of household refrigerators

Example of 400-liter refrigerator-freezers



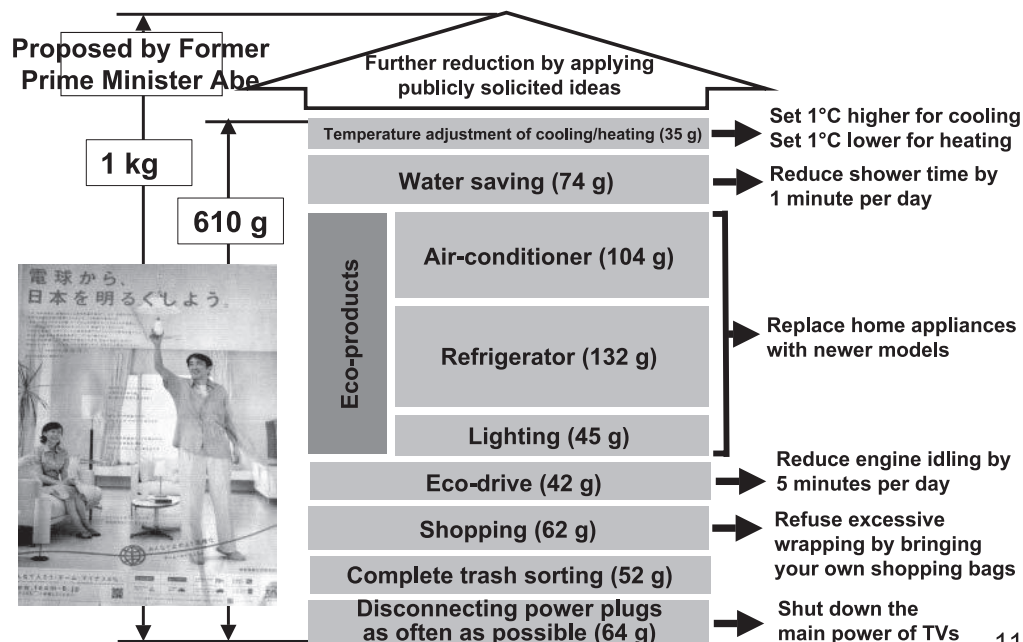
Reduction of power consumption of household air-conditioners (cooling/heating)

Example of 2.8 kW class cooling capacity



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Greenhouse Gas (GHG) Reduction of 1 kg per Day per Person



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Energy-efficient Home Appliance Promotion Forum



- Household energy reduction by replacing with energy-efficient home appliances
- Construction: Ministry of Economy, Trade and Industry, Ministry of Environment, manufacturers, distributors, consumer representatives
- Activity
 - ◆ Information offering...Information about energy-efficient home appliances
 - ◆ Market penetration campaign...Unified promotion campaign
 - ◆ Energy conservation diagnosis tool...Study of calculation method of energy conservation by replacement of home appliances

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Participation in APP

Asia-Pacific Partnership on Clean Development and Climate



Taskforce for building and electrical equipment

Electrical equipment

- Project 1: Standardization of measuring method of consumed energy
L: Korea CL: Japan, U.S.
- Project 2: Reduction of standby power
L: Australia CL: Korea
- Project 3: Conversion to the society of prioritizing energy-efficient products
L: Japan CL: China
Collecting information about "good practice" cases under each country's policies and systems to study the "measures for converting to the market popularizing products with higher energy performance"

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2 Activities by the Matsushita Group

2.1 Promotion of Clean Factories

2.2 Promotion of Green Products

2.3 Promotion of Environmental Communication

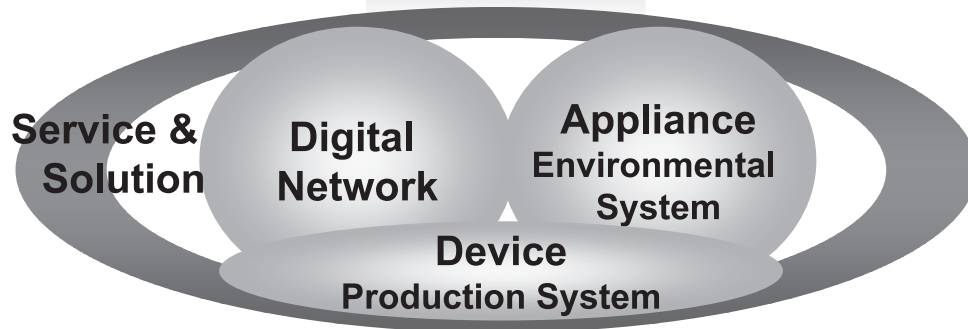
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Panasonic's Vision for 21st Century

Realizing a Ubiquitous Network Society

Living in Harmony with the Global Environment

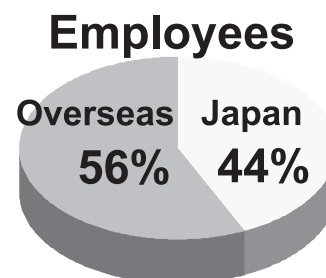
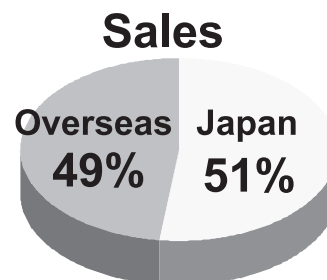
Contribute to *Mankind's* Quality of Life



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Company Profile

- Foundation 1918
- Sales 9,108.2 bln. JPY
- Operating Profits 459.5 bln. JPY
- Employees 330,000 approx.



(As of March 2007)

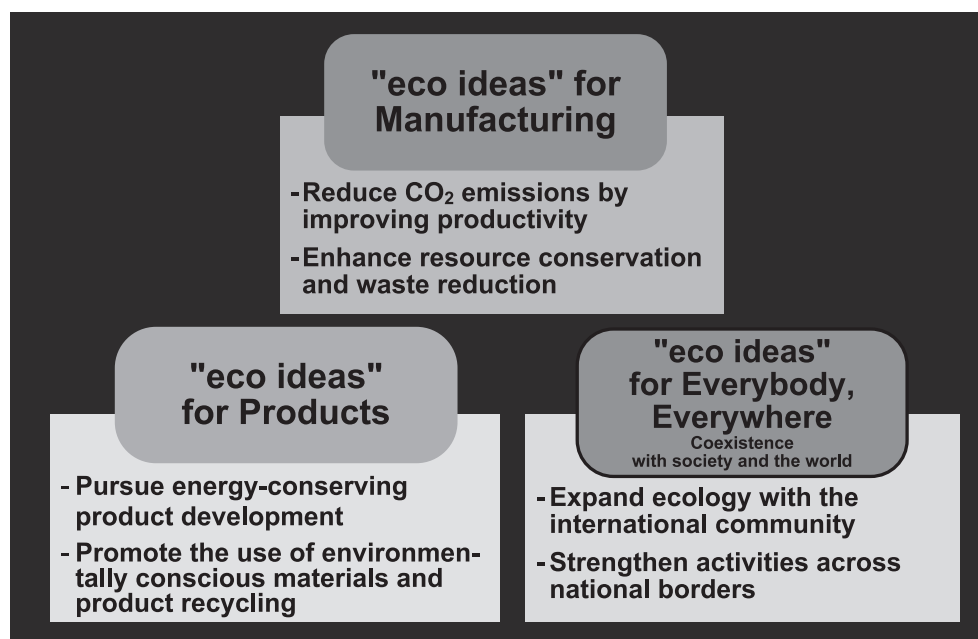
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Basic Attitude of Environment



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Three Priority Activities: Announced in Oct. 2007

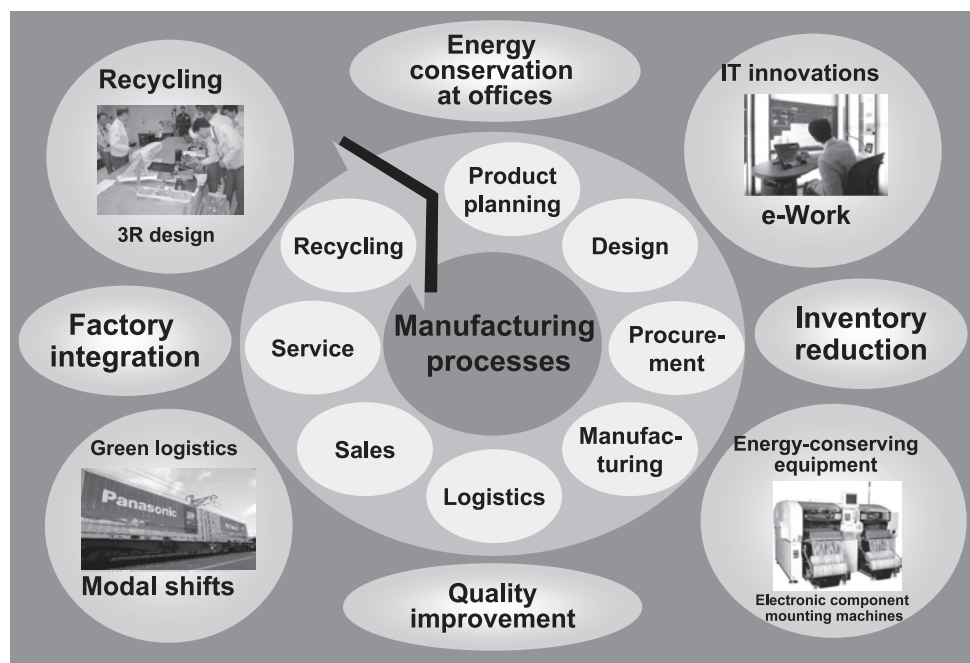


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2.1 Promotion of Clean Factories

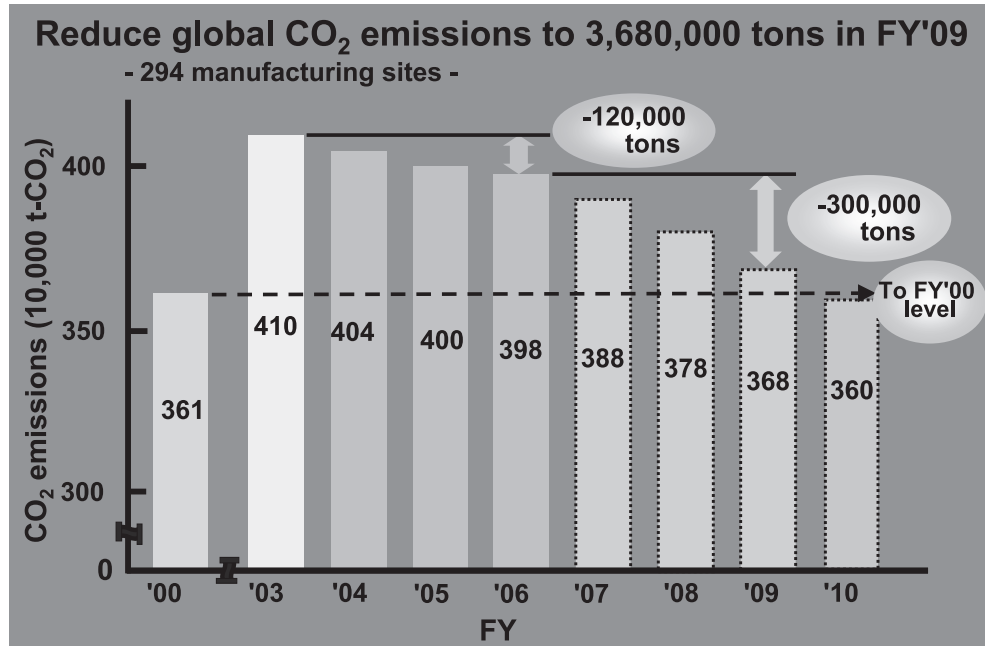
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"eco ideas" for Manufacturing Reduce CO₂ Emissions by Improving Productivity



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Reduce CO₂ Emissions to FY'00 Level

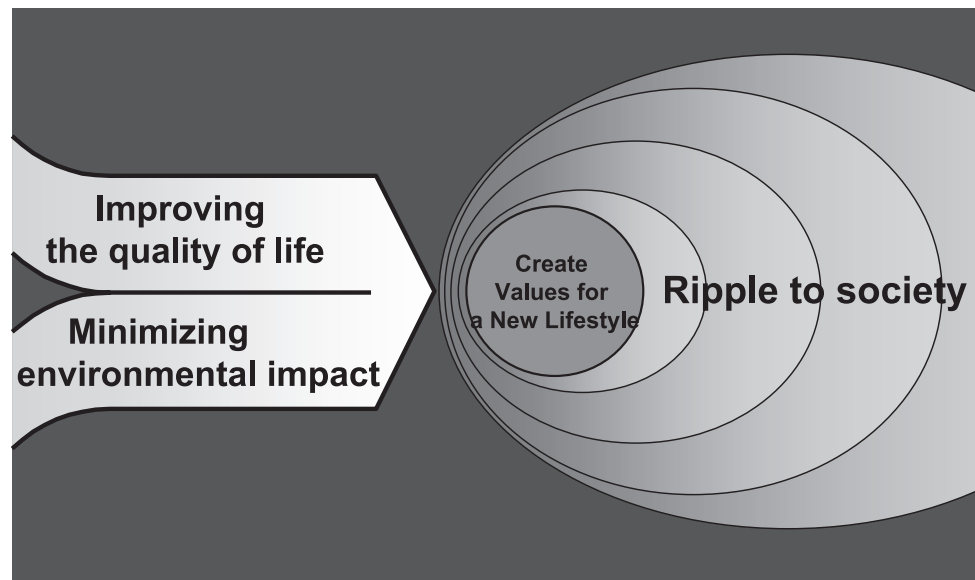


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2.2 Promotion of Green Products

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Creating Values for a New Sustainable Lifestyle



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Eco & UD House



Proposing value for a new lifestyle
by creating a comfortable and affluent life
space with Eco and UD



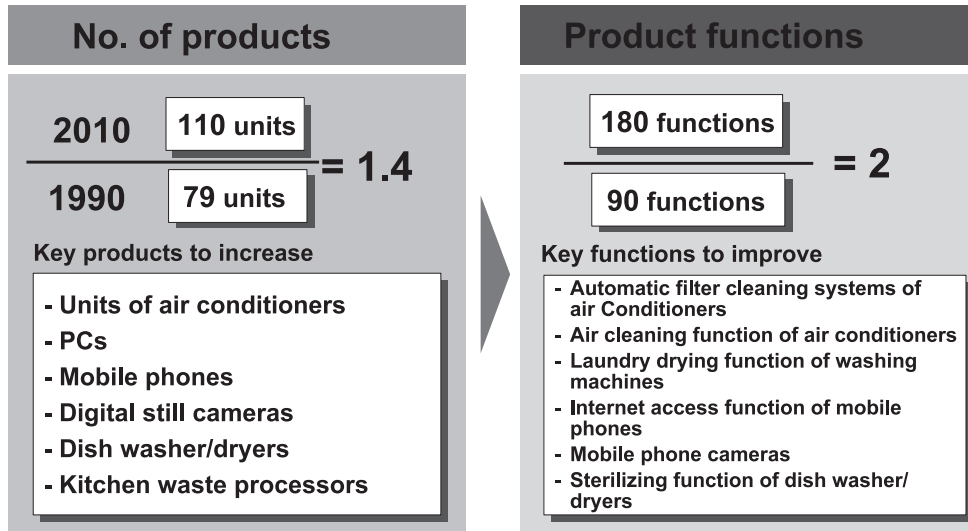
Proposing Factor 5
by targeting 2010 in comparison with 1990

「生活の質」を2倍
Improvement in "Quality of Life" x2
「環境への影響」を0.4倍
Reduction in "Environmental Impact" x0.4

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Improvement in "Quality of Life" x 2

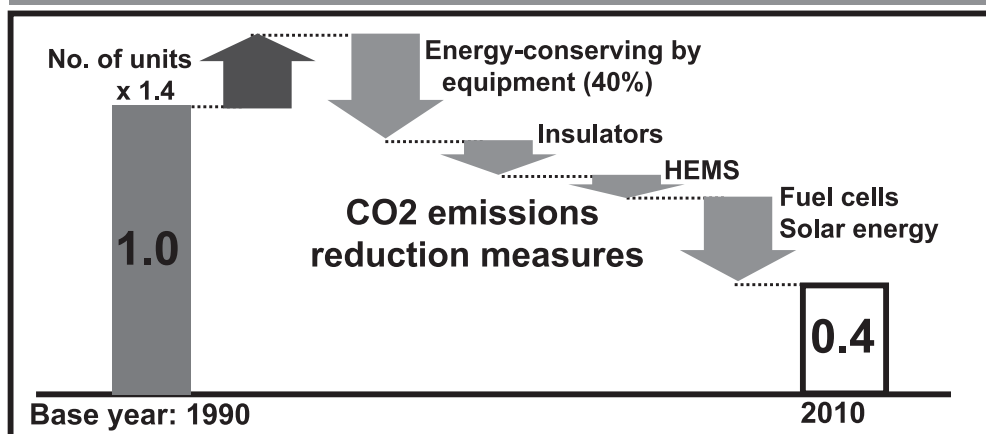
- Improving product functions through UD to 200%



Reduction in "Environmental Impact" x 0.4

- Reducing CO2 emissions to 40%

1. Energy-conserving by equipment
2. Energy-conserving by high-performance insulators
3. Energy-conserving by ubiquitous network (*Home Energy Management System, HEMS*)
4. Energy-conserving by new energy-resource equipment (fuel cells, solar energy)

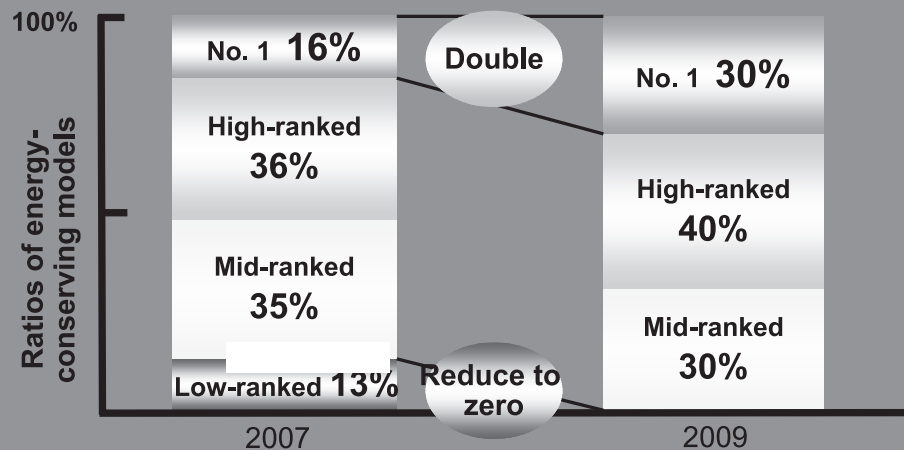


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"eco ideas" for Products Maximum Products' Energy Efficiency

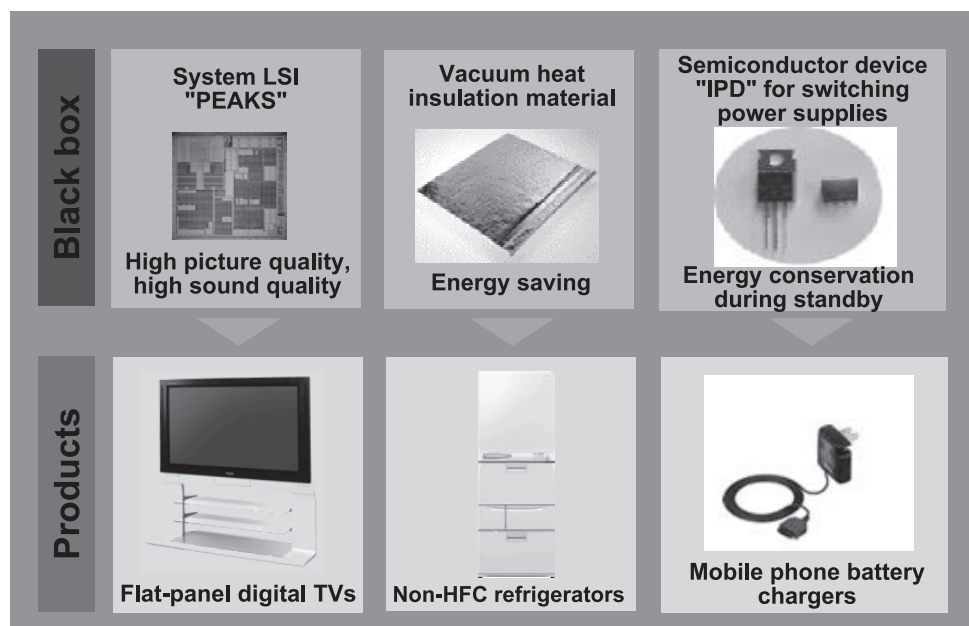
Increase the number of products featuring the No.1 energy-conserving performance and eliminate energy inefficient products

◆ Numerical target setting example based on the "Energy Conservation Performance Catalog"



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Creation of "Black-Box Technologies"




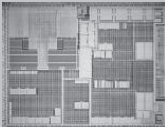
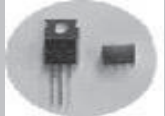
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Energy-conserving Measures for PDP TVs

- The world's first lead-free PDP
- Up to approx. 45% reduction in annual power consumption
382 kWh/yr → 209 kWh/yr

PDP TV

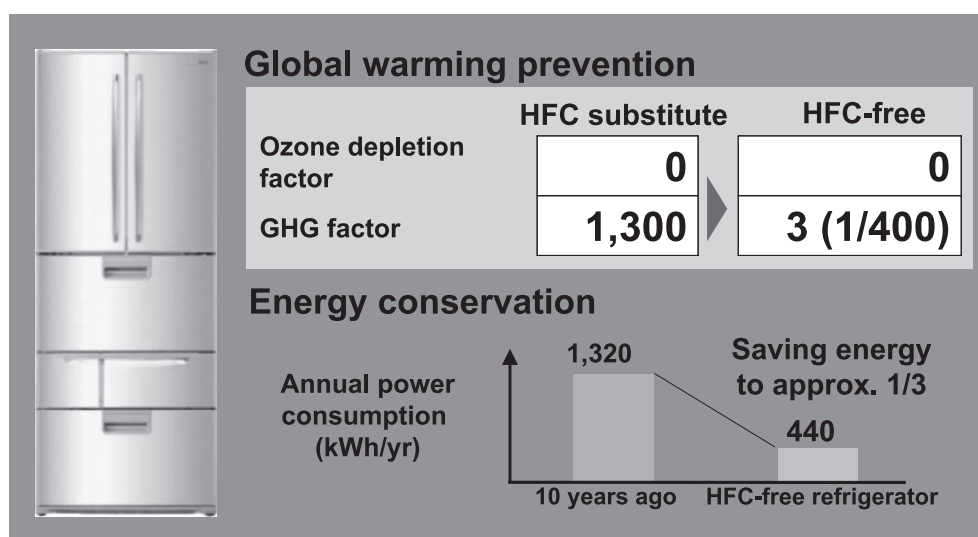


Increased panel efficiency	<ul style="list-style-type: none"> - Improved phosphorescence - Better transmittance
Improved control circuits	 <ul style="list-style-type: none"> - New system LSI - Power control based on image signals - Improved power circuits
Reduced stand-by power consumption	 <ul style="list-style-type: none"> - Semiconductor element "IPD" for switching power supply

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Global Warming Prevention and Energy-conserving by HFC-free Refrigerators

- Contribution to global warming prevention in both HFC-free design and energy conservation



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2.3

Promotion of Environmental Communication

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Disclosing Environmental Information and Promoting Environmental Communication

- Communicating Panasonic's environmental initiatives to society with transparency, for improving corporate values



Diverse stakeholders

Shareholders
Investors

Consumers

NPOs
NGOs

Local
residents

Employees

Business
partners

Academic
institutions

Mass media

Administra-
tive agencies

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Proposing 'eco ideas'

- The Panasonic Group leads the way with 'eco ideas' in every activity.
- We contribute to global warming prevention in the household sector through communication of energy-conserving products.

'eco ideas' reduce CO2 emissions and electric bills.

家庭用家電で減らすCO2削減も実行する所が、2008年からはCO2です。
しかし、家庭から出るCO2は、むしろ増え続けているのが現状です。
家庭用CO2削減も企業活動と関係するアイテムが、
CO2削減と電気代を減らす数々の製品を提案し、
それを通じてCO2削減を実現しています。
特に33のアイテムを提案して、家庭用・業務用など
減らすCO2量も、1990年と比較して削減しています。
その削減量は約11.2%削減を実現しています。

eco ideas

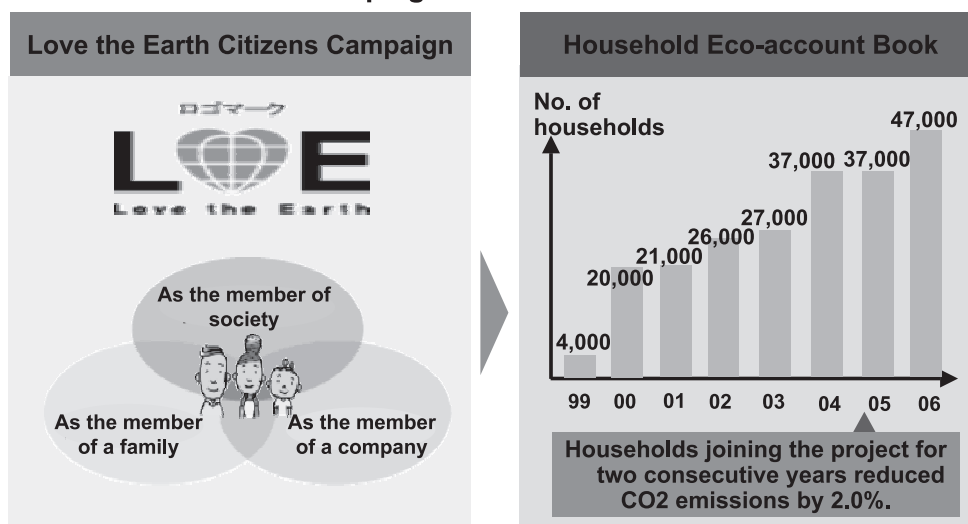
National

www.panasonic.co.jp/eco/

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Corporate Citizenship

- Panasonic proposes innovations in awareness, activities and lifestyles to its employees and their families, through its "Love the Earth Citizens Campaign."



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'eco ideas' for Everybody, Everywhere

Expand Eco-conscious Activities with the Collective Wisdom



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Panasonic's Declaration as an Environmentally Contributing Enterprise in China

1

We will make all of our products
"Green Products"

2

We will make all of our factories
"Clean Factories"

3

All Matsushita Group companies adopt
an Eco-Behavior



Our company intends to become one of China's environmentally contributing enterprises by implementing these activities with each one of you as members of society

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All Matsushita Group Companies in China Adopt an "Eco-Behavior"

60,000 employees in China have declared their intention to adopt an Eco-Behavior

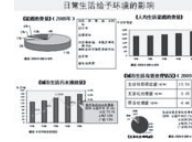
Eco-lifestyle awareness activities



"Ten Items of an Eco Lifestyle" (Material)



China region Intranet "China Green Plan"



Employee awareness materials

"Eco-Behavior" signature campaign

Signed by 67,336 employees of 74 companies in China



珠海松下电池(有)



唐山松下产业机器(有)



中国华录·松下电子信息(有)

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Panasonic
ideas for life

Thank you.

eco
ideas

The Panasonic Group
leads the way with 'eco ideas'
in every activity.

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