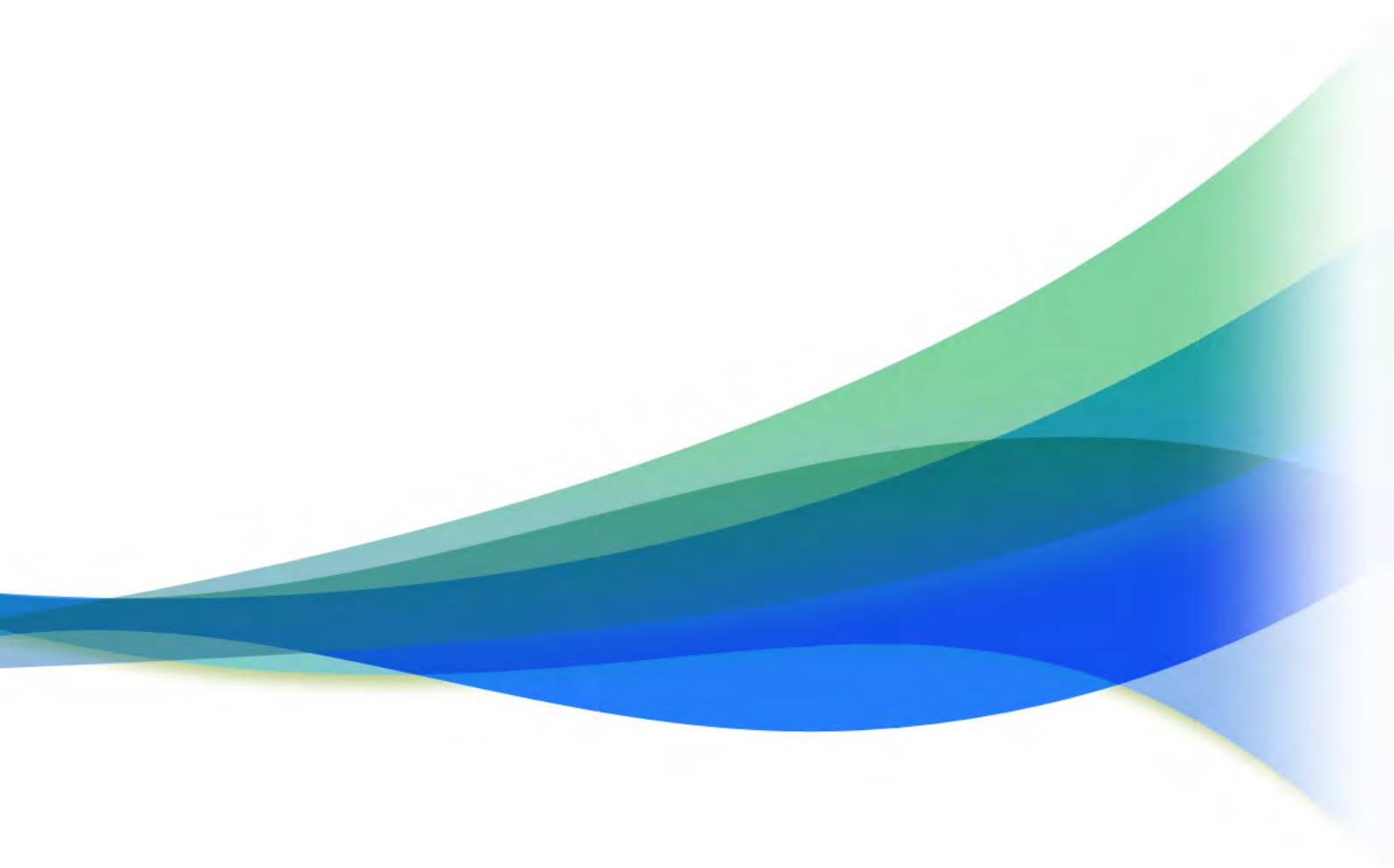


# Sustainability Report 2012



Panasonic Corporation



# Welcome to our Sustainability Report 2012

This report describes our approach to sustainability and provides highlights across relevant business areas and sustainability challenges to achieve a Group vision of “to become the No.1 Green Innovation Company in the Electronics Industry” looking to 2018.

## ABOUT OUR REPORT

Our Sustainability Report 2012, published in June 2012, covers our performance for fiscal 2012, which started on April 1, 2011, and ended on March 31, 2012. This report is published alongside our Annual Report 2012, which contains detailed information about our business and financial performance, and our ‘eco ideas’ Report 2012, which contains detailed information about our environmental activities and performance.

The scope of this annual report includes data and activities from all global markets and business domains of the Panasonic Group, including SANYO Electric Co., Ltd. and former Panasonic Electric Works Co., Ltd. All references to “Panasonic,” “Panasonic Group,” “Group,” “company,” and “we,” within this report refer to Panasonic Corporation and its business domains.

KPMG AZSA Sustainability Co., Ltd., assured the main parts of the environmental data in this report and its independent assurance report is contained in our ‘eco ideas’ Report 2012. The balance of the report, while not assured by an external agency, was generated using internal data.

All photographs used in this publication are subject to copyright protection and have been used with the express permission of the copyright owner.

## DEFINING REPORT CONTENT

We used the International Standard, ISO 26000:2010, Guidance on social responsibility, to determine the universe of issues relevant to social responsibility. Specifically, we used ISO 26000’s Guidance on social responsibility core subjects, which includes seven core subjects—Organizational Governance, Human Rights, Labour Practices, The Environment, Fair Operating Practices, Consumer Issues, and Community Involvement and Development—to define the content and the structure of our report.

We also used the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines G3.1, and its principles of sustainability context, stakeholder inclusiveness, materiality, and completeness, to further define our report content. In addition, we used the GRI G3.1 to guide our reporting on standard disclosures and sustainability performance, and we referenced our previous materiality assessment, conducted in fiscal 2012, to determine priority issues.

We provide ISO 26000 and GRI G3.1 content indexes at the back of this report.

### ISO 26000

Guidance on Social Responsibility Core Subjects



### GRI G3.1

Sustainability Reporting Guidelines

#### SUSTAINABILITY CONTEXT

Address the wider  
sustainability context

#### INCLUSIVENESS

Respond to our  
stakeholder expectations

#### MATERIALITY

Determine relevance and  
priority of issues to Panasonic

#### COMPLETENESS

Ensure coverage is  
sufficient for assessment



## Report Content & Structure

# Contents

## Our Approach

About Panasonic	2
Top Message	3
100th Anniversary Vision and Environmental Action Plan	4
Our Social Responsibility and Priorities	6
Panasonic and Sustainability	8
Our Commitments and Engagements	16
Corporate Governance	18
Risk Management	19
Case Study: Measures against Floods in Thailand	20
Our Activities: One Year after the Great East Japan Earthquake	21

## Our Activities by Category

Activity Highlights	22
Customers	24
The Environment	38
Supply Chain	56
Employees	60
Human Rights	66
Fair Operating Practices	68
Community Involvement and Development	70

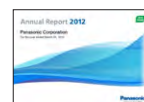
## Our Sustainability Performance

Performance Data	74
Report Content Indexes	76
External Recognition	80
Our Sustainability Communications	81

Refer to our 'eco ideas' Report 2012 ([www.panasonic.net/eco](http://www.panasonic.net/eco)), which will be issued in late June, for a detailed report of our environmental activities, and our Annual Report 2012 ([www.panasonic.net/ir](http://www.panasonic.net/ir)), which will be issued in mid-August, for a detailed report of our financial performance and results.



'eco ideas'  
Report 2012

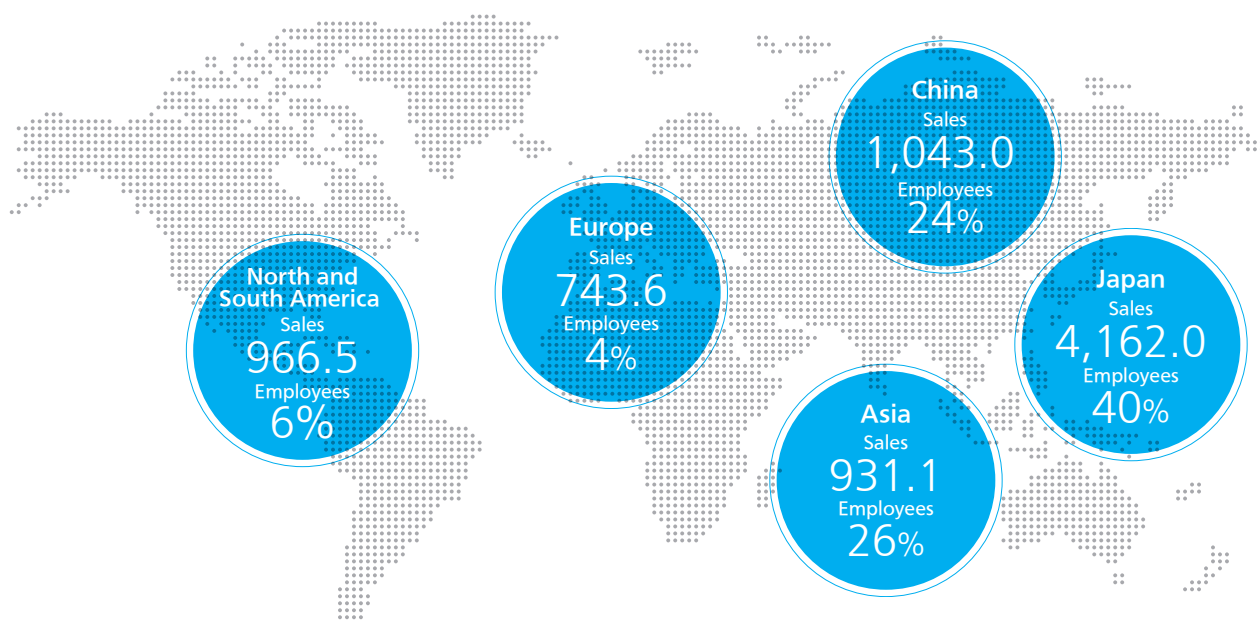


Annual Report  
2012

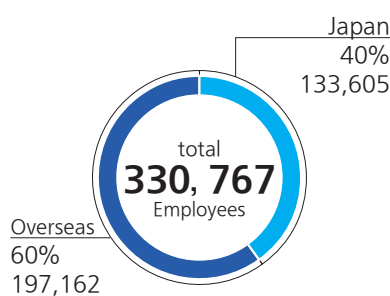
# About Panasonic

Since its foundation in 1918, Panasonic Corporation has been promoting the business by the company guideline based on its basic management philosophy, which states that the mission of enterprise is to contribute to the progress and development of society and the well-being of people worldwide. Currently, the company is actively moving forward with a Group vision to become the No.1 Green Innovation Company in the Electronics Industry looking to 2018, the 100th anniversary of our founding by integrating our environmental contribution with our business growth.

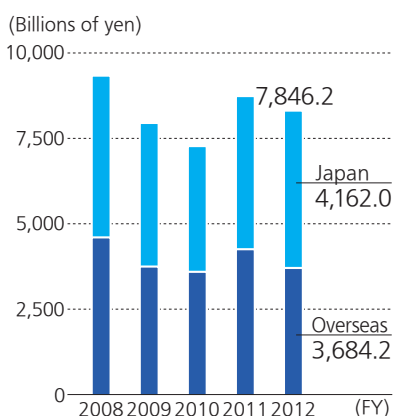
**Sales and Numbers of Employees by Region (Fiscal 2012 Results)**  
 (Billions of yen / Percentage out of 100%)



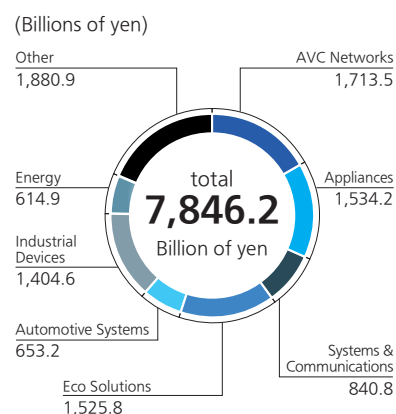
**Numbers of Employees (Ratio of Overseas/Japan) as of March 31, 2012**  
 (Percentage)



**Net Sales (Fiscal 2012 Results)**



**Fiscal 2012 Sales by Segments**



(Note)  
 Sales for each business segment includes intersegment transactions. Intersegment sales have been eliminated from the total amount. Amounts of less than 100 million yen have been rounded to the nearest hundred million yen. The "Other" segment consists of the Healthcare Company, the Manufacturing Solutions Company, PanaHome Corporation and others.

**Three Business Sectors consist of Nine Business Domain Companies and One Marketing Sector**

**Consumer Business Sector (B to C)**

- AVC Networks Company
- Appliances Company
- Global Consumer Marketing Sector

**Solutions Business Sector (B to B)**

- Systems & Communications Company
- Eco Solutions Company
- Healthcare Company
- Manufacturing Solutions Company

**Components and Devices Business Sector (B to B)**

- Automotive Systems Company
- Industrial Devices Company
- Energy Company

# Top Message

The Great East Japan Earthquake, as well as the floods in Thailand which occurred just 4 months later, once again served as a strong reminder to us of the importance of having in place in society a solid system for disaster-readiness. What is more, if we look at what is happening around the world, we find that as emerging countries are achieving spectacular development, we are also facing more serious problems, such as depleting resources and energy, shortages of food and water, and a reduction in biodiversity. The situation surrounding us is changing daily, even hourly, and we have to accelerate our activities more than ever before in order to achieve sustainable development throughout all of society.

With all of these challenges which the global community faces, Panasonic is now moving forward with a Group vision to become the No.1 Green Innovation Company in the Electronics Industry looking to 2018, the 100th anniversary of our

founding. Wishing to realize this vision, we want to integrate our environmental contribution with our business growth and thereby accomplish our goal of creating a situation where "The more we contribute to the environment, the more our business will grow." To put it another way, we need to take up the challenge and prove wrong the conventional rule which states: "To improve people's lives, there is no other way than to have an increase in consumption." To that end, we will make value proposals by providing energy solutions for the entire home, building and town, focusing on energy creation, energy storage, energy saving and energy management, and at the same time, we will offer green lifestyles which are sustainable and which provide people around the world with safety, a sense of security, and comfort. In this way, we want to bring about green innovation which begins with our everyday lives.

Although the fiscal year which ended March 31, 2012 was the 2nd year of our 3-year midterm management plan, Green Transformation 2012 (GT12), which was devised to help us realize our corporate vision, we suffered our largest-ever net loss and are facing the biggest crisis in our history. But on the other hand, we were able to set the foundation to reach our goal of becoming a Green Innovation Company, as for instance, in the launching our new business organization in January 2012. Our new initiatives, such as those for reducing CO<sub>2</sub> emissions, promoting recycling-oriented manufacturing, and product planning tailored to individual regions around the world, have been showing steady results.

Under our new business organization, we will create new lifestyle value in a comprehensive manner by taking full advantage of the individuality and abilities of our employees all around the world. And as a result of our making a contribution to society, we will overcome our difficulties and improve our financial performance. Moving forward, Panasonic will continue to cooperate with all of its stakeholders, listen sincerely to their voices, and fulfill its mission as a public entity of society, a mission that has remained unchanged since our foundation.

June 2012



President, Panasonic Corporation





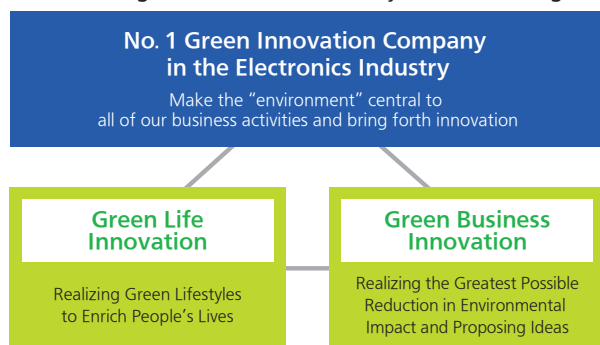
# 100th Anniversary Vision and Environmental Action Plan

## 100th Anniversary Vision

As global warming becomes more serious and concerns rise about the depletion of resources and our eco system being in crisis, global environmental issues have become the biggest social problem we need to address as a global community. We have long been carrying out our business activities following a management philosophy of “contributing to society.” In this regard, we at Panasonic want to lead the industry in bringing about a “green revolution,” and we also want to make a contribution in areas that affect the day-to-day lives of people, a contribution worthy of Panasonic. Having such a goal firmly in mind, we set out our vision looking to the 100th anniversary of our founding, and announced this vision at our Annual Management Policy Meeting on January 18, 2010. By 2018, the 100th anniversary of our founding, we aim to become the No. 1 Green Innovation Company in the Electronics Industry. We will make the “environment” central to all of our business activities and bring forth “Green Life Innovation” and “Green Business Innovation.”

For more on our 100th Anniversary Vision, visit:  
<http://panasonic.net/vision>

Vision looking to the 100th anniversary of our founding



When we made our vision looking to the 100th anniversary of our founding, we established “Indexes for the No. 1 Green Innovation Company in the Electronics Industry,” consisting of two kinds of management indexes. The first is “Global Excellence Indexes,” which contain our global management targets, such as our sales and operating profit ratio. The second is “Green Indexes,” which consist of four items, namely our “contribution to reducing CO<sub>2</sub> emissions,” our “contribution to recycling resources,” the “size of our Energy Systems Business,” and the “percentage of sales for No. 1 eco-conscious products.” We will work to always meet the “Global Excellence Indexes,” and at the same time aim to become No. 1 in the industry for the four items in the “Green Indexes” taken as a whole.

By simultaneously pursuing these indexes, we will integrate our environmental contribution and our business growth throughout the entire Group.

Indexes for No.1 Green Innovation Company in the Electronics Industry

Be industry No.1 in Green Indexes	+	Always meet Global Excellence Indexes
Contribution to reducing CO <sub>2</sub> emissions		Sales: 10 trillion yen or more
Contribution to recycling resources		Operating profit ratio / ROE: 10% or more
Size of Energy Systems Business Percentage of sales for No.1 eco-conscious products		Having multiple key products with a No.1 global market share

## Green Plan 2018

Green Plan 2018 is Panasonic’s environmental action plan that outlines initiatives for all Panasonic Group employees to carry out. Following our previous action plan, the Green Plan 2010, which was established in 2001 and completed in fiscal 2010, our new Green Plan 2018 provides a clear action plan to take our company forward from fiscal 2011 through fiscal 2019. Our action plan consists of a set of goals and targets, including the four core items from our Green Indexes, as well as goals for water conservation, use of chemical substances, and other environmental challenges, such as biodiversity. Our employees are committed to the Green Plan 2018, and we will continue to work together with everyone in society to address shared global environmental issues.

Concept of Green Plan 2018



## Details of Green Indexes

Items		Results	Targets			
		FY2012	FY2012	FY2013	FY2019	
Contribution to reducing CO2 emissions	Size of contribution in reducing CO2 emissions*	40.37 million tons	37.00 million tons	41.00 million tons	<ul style="list-style-type: none"><li>• Increase the size of contribution in reducing CO2 emissions to 120 million tons</li><li>• Make net CO2 emissions peak and decline thereafter (Emissions from production activities and product use)</li></ul>	Be industry No. 1 as a whole
	Products	37.87 million tons	35.00 million tons	38.45 million tons		
	Energy saving	35.05 million tons	32.00 million tons	34.85 million tons		
	Energy creation	2.82 million tons	3.00 million tons	3.60 million tons		
	Production activities	2.50 million tons	2.00 million tons	2.55 million tons		
Contribution to recycling resources	Total recycled resources used/ total resources used	14.7%	>12% in FY2013		>16%	
	Waste recycling rate	98.9%	98.5%	≥99%	≥99.5%	
Size of Energy Systems Business		¥519.3 billion	¥850 billion in FY2013		¥3 trillion or more	
Percentage of sales for No. 1 eco-conscious products		Approx. 13%	30% in FY2019 (Double FY2010 level)			

\* Due to such factors as the restructuring of our television business and its impact on the per unit amount of the "size of contribution in reducing CO<sub>2</sub> emissions," we reviewed our fiscal 2013 goals. For a full description of how we define the size of contribution in reducing CO<sub>2</sub> emissions, see page 39.

## Green Plan 2018

\* Targets in the Green Indexes

Targets for 2018		Our Actions	Pages
CO <sub>2</sub> Reduction	Make net CO <sub>2</sub> emissions peak and decline thereafter* (Emissions from production activities and product use)	<ul style="list-style-type: none"> <li>• Maximize a size of contribution in reducing CO<sub>2</sub> emissions from production activities and product use (120 million tons compared to FY2006)</li> <li>• Reduce CO<sub>2</sub> emissions per basic unit in logistics (Reduction in CO<sub>2</sub> emissions per basic unit of weight: By 46% or more compared to FY2006)</li> <li>• Reduce CO<sub>2</sub> emissions from offices (Self-owned office buildings in Japan: Reduction by 2% or more on yearly average)</li> <li>• Promote CO<sub>2</sub> reduction in cooperation with procurement partners</li> <li>• Promote the Business of Energy Conservation Support Service for Entire Factory</li> </ul>	27-30, 39-45, 58
	Expand the sales of Energy Systems business to ¥3 trillion or more*	<ul style="list-style-type: none"> <li>• Globally develop energy management systems for an entire home and building</li> <li>• Win the world top-class share in solar cell business (Top three rank in 2015)</li> <li>• Win the world's top share in fuel cell cogeneration systems</li> <li>• Globally expand stationary lithium-ion battery systems</li> <li>• Vastly expand Eco-car related business (Batteries, thermal management systems, power supply management systems and power charging infrastructure)</li> </ul>	27-28, 30
Resources Recycling	Pursue recycling-oriented manufacturing to make the best use of resources*	<ul style="list-style-type: none"> <li>• Reduce total resources used and increase recycled resources used (Ratio of total recycled resources used to total resources used: more than 16%)</li> <li>• Achieve "zero-waste emission" from production activities at all sites (Waste recycling rate: 99.5% or more)</li> <li>• Promote resource recycling together with procurement partners</li> </ul>	46-50, 58
Water	Minimize the amount of net water consumption	<ul style="list-style-type: none"> <li>• Increase products to save water and contribute to the water recycling</li> <li>• Reduce water consumption in production activities and increase the use of recycled water</li> </ul>	51
Chemical Substances	Minimize environmental impact caused by chemical substances	<ul style="list-style-type: none"> <li>• Develop alternative technologies for environmentally-hazardous substances</li> <li>• Discontinue the use of substitutable environmentally-hazardous substances in products</li> <li>• Minimize environmentally hazardous substances released from factories</li> </ul>	52-54, 58
Biodiversity	Identify impact on biodiversity and contribute to conservation	<ul style="list-style-type: none"> <li>• Increase products contributing to the biodiversity conservation</li> <li>• Encourage greening in business sites and surrounding areas</li> <li>• Promote the sustainable use of forest resources</li> <li>• Promote biodiversity conservation together with procurement partners</li> </ul>	55
Increase the percentage of No. 1 eco-conscious product sales to 30%* (Double FY2010 level)		<ul style="list-style-type: none"> <li>• Provide top-class eco-conscious products in all business areas</li> <li>• Promote 'eco' marketing firmly rooted in each region and country</li> </ul>	25
Increase environmental contribution through collaboration with stakeholders		<ul style="list-style-type: none"> <li>• Research and propose green lifestyles</li> <li>• Foster human resources leading green innovation</li> <li>• Promote Panasonic ECO RELAY for Sustainable Earth</li> <li>• Provide environmental education to 2 million children around the world</li> <li>• Plant 10 million trees around the world together with stakeholders</li> <li>• Accelerate environmental contribution through collaboration with suppliers</li> </ul>	58

# Our Social Responsibility and Priorities

Since its foundation in 1918, Panasonic Corporation has been guided by its basic management philosophy, which states that the mission of an enterprise is, as a public entity, to contribute to the progress and development of society and the well-being of people worldwide through its business activities.

## Our Determination of the “Management Based on the Corporate Social Responsibility”

We at Panasonic achieve this mission through our core business activities of delivering products and services to our customers, managing the impacts of our operations, attending to impacts in our supply chain, and building productive relationships with our people and local communities.

Our world is at a crossroads, confronted by the challenge of creating social harmony while creating a higher standard of living. Fortunately, this challenge can inspire innovation—and innovation can bring about solutions to this challenge. From developing technologies that address local sustainability needs to offering critical insights and capabilities that enable others to make social advances, we believe business can be a source for new ideas and solutions.

For almost 100 years, Panasonic has had a role to play in questing for innovation. And as we strive to become the No. 1 Green Innovation Company in the Electronics Industry by 2018, we must also quest for corporate social responsibility (CSR). Our commitment to sustainable operations requires that the manner in which we pursue our business be done responsibly and with a higher level of integrity.

We commit to using the talent and expertise of the employees of the world to develop solutions that seek to solve our global challenges and create value for society.

*“There is much discussion today regarding ‘social responsibility,’ but while the meaning of that concept can be wide-ranging depending on social conditions at a particular time, the fundamental social responsibility of a corporation, in any era, should be to improve society through its business activities. It is extremely important to manage all business activities based on this sense of mission.”*

*-Konosuke Matsushita, Founder of Panasonic Corporation, My Management Philosophy (issued in June 1978)*



Konosuke Matsushita, founder of Panasonic Corporation



## Our Priorities

In fiscal 2012, we continued to make progress on our “paradigm shift for growth,” promoting such efforts as expanding our global business in emerging countries and shifting from a “Japan-oriented” to a “globally-oriented” company. By deepening our understanding of CSR risks and opportunities and intensifying our ability to meet the expectations of our stakeholders, our CSR priorities serve to support our core business objectives.

In this context, we highlight important aspects of our global CSR approach that will require new thinking, capabilities, and collaborations in the months and years ahead. Emphasis on these areas will serve as a foundation for us at Panasonic to fulfill our responsibilities as a global enterprise.

### Ethics and Integrity

As we continue to shift the balance of our business to global markets, understanding local differences in ethics and integrity risks will be important to our success. One of the ways in which we address this issue is by increasing the uptake of our code of conduct infrastructure in all locations where we do business.

### Product Development

Understanding the sustainability needs of our local customers is a key factor in developing innovations that will drive our business growth, particularly in our emerging markets. We continue to meet the demands of our local customers and strengthen our development, manufacturing, and sales activities.

### Diversity

To become a successful global enterprise, we must have a global workforce. In order for our talent to be reflective of our customers and stakeholders, we carry out a number of important initiatives to improve the diversity of our employees, who understand not only the global aspects of our business, but also local needs and expectations.

### Human Rights

With the introduction of the UN Guiding Principles on Business and Human Rights in March 2011, new importance is being placed on how companies “respect” human rights in the conduct of their business and operations. As we continue to expand our locally-oriented product development, manufacturing, and sales activities globally, we must strengthen our efforts to assess, manage, and integrate human rights issues—from labor rights to health and safety to product safety and use—into our day-to-day decision-making process.

### Supply Chain

Responsible supply chain management is growing in importance among our stakeholders, making it all the more important that we integrate CSR into our procurement process. As we further expand our global operations and presence, we will face myriad challenges in maintaining the levels of social and environmental responsibility that will ensure our successful and sustainable growth.

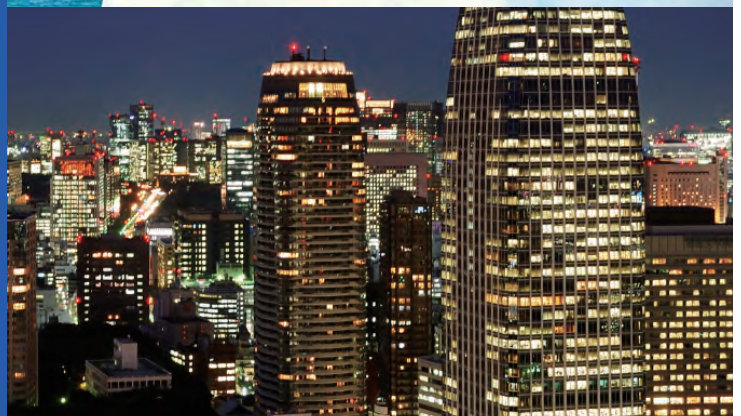
## Corporate CSR Meeting

Chaired by the president and attended by related directors and executive officers, this meeting is held once a year to discuss global trends in CSR, review our dialogues with stakeholders and evaluate initiatives that would enhance our approach. In fiscal 2012, the meeting convened to focus on the topic of conflict minerals in our supply chain that our stakeholders, including our major customers, are highly interested in. We also discussed the establishment of a management system and how we can collaborate with stakeholders to address this issue.

# Panasonic and Sustainability

From resource and energy constraints to access to technology to the coexistence of "ecology" and "comfort," the sustainability challenges our planet faces this century are unprecedented in size and scope. Addressing these challenges will require global collaboration and comprehensive solutions.

Confronted by the challenge to achieve social and environmental harmony while creating a higher standard of living, we at Panasonic are dedicated to empowering society, people, and business for generations to come and by establishing sustainability as an important driver of our business growth.





## Global Issue 1

### Resource and Energy Constraints

With the warming of our planet and steadily increasing constraints on resources and energy, how we manage existing resources and create new ones is not only the greatest challenge that we face this century, but also a significant opportunity for business to develop innovations that will lead to a more energy- and resource-smart world.

## Global Issue 2

### Access to Technology

Improving quality of life in an ever more populated world while using fewer resources will require new technologies that challenge the conventional rule, which states: "To improve people's lives, there is no other way than to have an increase in consumption." Providing greater access to these technologies and creating new opportunities for more people around the globe is a key business contribution an enterprise like Panasonic can make to meet the world's development and environmental needs.

## Global Issue 3

### Coexistence of Ecology and Comfort

The challenges of our global environment are today's most urgent social issues. Today's generation has the responsibility to recognize the importance of preserving the natural environment for the next generation and improving the social conditions of where we live. Taking action and solving these social challenges will require us to play a prominent role and cooperate with one another. It also offers great opportunities for creating efficient innovations that are safe and provide a sense of security and comfort that will further enhance business opportunities.



## Global Issue 1

Resource and Energy Constraints

### OUR SOLUTION

# Environmentally Conscious Products

As the challenges of climate change and how we use resources and energy continue to grow in intensity, people around the world—both in developed and developing countries—are increasingly aware of the need to reduce our environmental impacts and are looking for new consumer options that address this concern.

### OUR APPROACH

In developing and expanding the product line-up of our products, we always strive to leverage our product development and advanced production technologies to contribute toward reducing our environmental impact, including reducing CO<sub>2</sub> emissions and resource use.

Our new series of environmentally conscious appliances—which include a refrigerator, a washing machine and a clothes dryer, a vacuum cleaner and a rice cooker—uses our best technologies and processes to reduce our environmental impact, such as CO<sub>2</sub> emissions and the use of resources, during both the production stage and the product-use phase.



Newly developed environmentally conscious appliances or the “Series of Resources Recycling-Oriented Products”



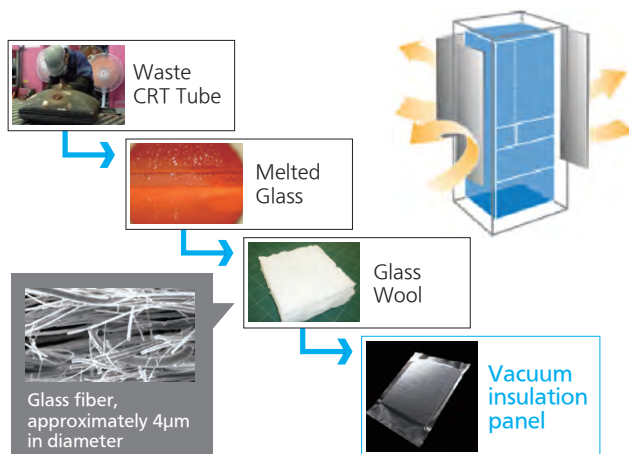


Established a unique recycle- and reuse- process that produces glass wool from old television tube glass

### Using Recycled Resources

One of the key features of our environmentally conscious products is our use of recycled resources during the production of these products.

For example, by applying our unique technologies and processes, recycling factories take glass from old television tubes (known as CRTs) and our Appliance Company's glass wool factory recycles it into glass wool, which is then developed into vacuum insulation material for our refrigerators and other products.



### Reducing Use-phase Impacts

To help our customers reduce their environmental footprint in their everyday lives, we equip our environmentally conscious products with our latest ECO-NAVI features, which use intelligent sensors to optimize energy and water consumption based on our customers' lifestyles and levels of usage.

For instance, we equipped our air conditioners with ECO-NAVI to detect where people are in the room and adjust airflow direction based on their room location. And once there is no one in the room, it automatically turns off.

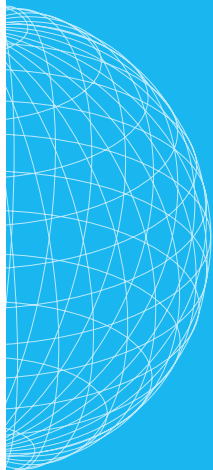
### OUR IMPACT

Our environmentally conscious products have led to new research and development toward how we design and introduce these products in new and emerging markets and regions that take into account local lifestyles and customs. While the level of environmental awareness and standards may differ by region, we are committed to offering environmentally conscious products no matter where we are—it is part of our mission.



## Global Issue 2

### Access to Technology



#### OUR SOLUTION

# Solar LED Lantern- supplied Light

Limited access to technology, from basic electricity to lighting, stifles educational opportunities, economic development, and the improvement of social conditions in emerging and developing countries. Over 1.3 billion people live without electricity today.\*

\*Source: International Energy Agency, World Energy Outlook 2011

#### OUR APPROACH

We have brought renewable lighting to people who live without access to basic electricity at an affordable price. A typical product is the solar LED lantern, which stores solar energy and converts energy into light.

Our solar LED lantern also helps to reduce the serious negative health impacts caused by the black smoke produced by traditional kerosene lamps, which are typically used in many areas lacking electricity. Shifting away from the use of kerosene lamps also reduces concerns about fire and safety. We are also focusing on locally-oriented products, designed with local customers' needs in mind, through our local lifestyle research and analysis.

#### OUR IMPACT

In April 2011, we donated 1,000 solar LED lanterns to the Project of the Millenium Village of Mbola, Tanzania, which was implemented by the United Nations Development Programme (UNDP) among other organizations. The solar LED lanterns for this project have been sold at a low price by local Savings and Credit Cooperative Societies, and have provided a number of beneficial uses, for instance: allowing store owners to sell products safely and comfortably at night;



and providing school teachers with additional time to prepare lessons for the next day.

Cambodia, a country experiencing steady economic growth as a member of the Greater Mekong Sub-region, still suffers from the aftermath of the civil war and various social challenges related to poverty, including poor electrification. In March 2012, we donated 2,000 solar LED lanterns to 15 nonprofit and nongovernmental organizations (NPO/NGOs). The solar LED lanterns are now used for various activities, including literacy education and medical activities at night, and are expected to contribute as a solution to many of the social challenges in Cambodia.

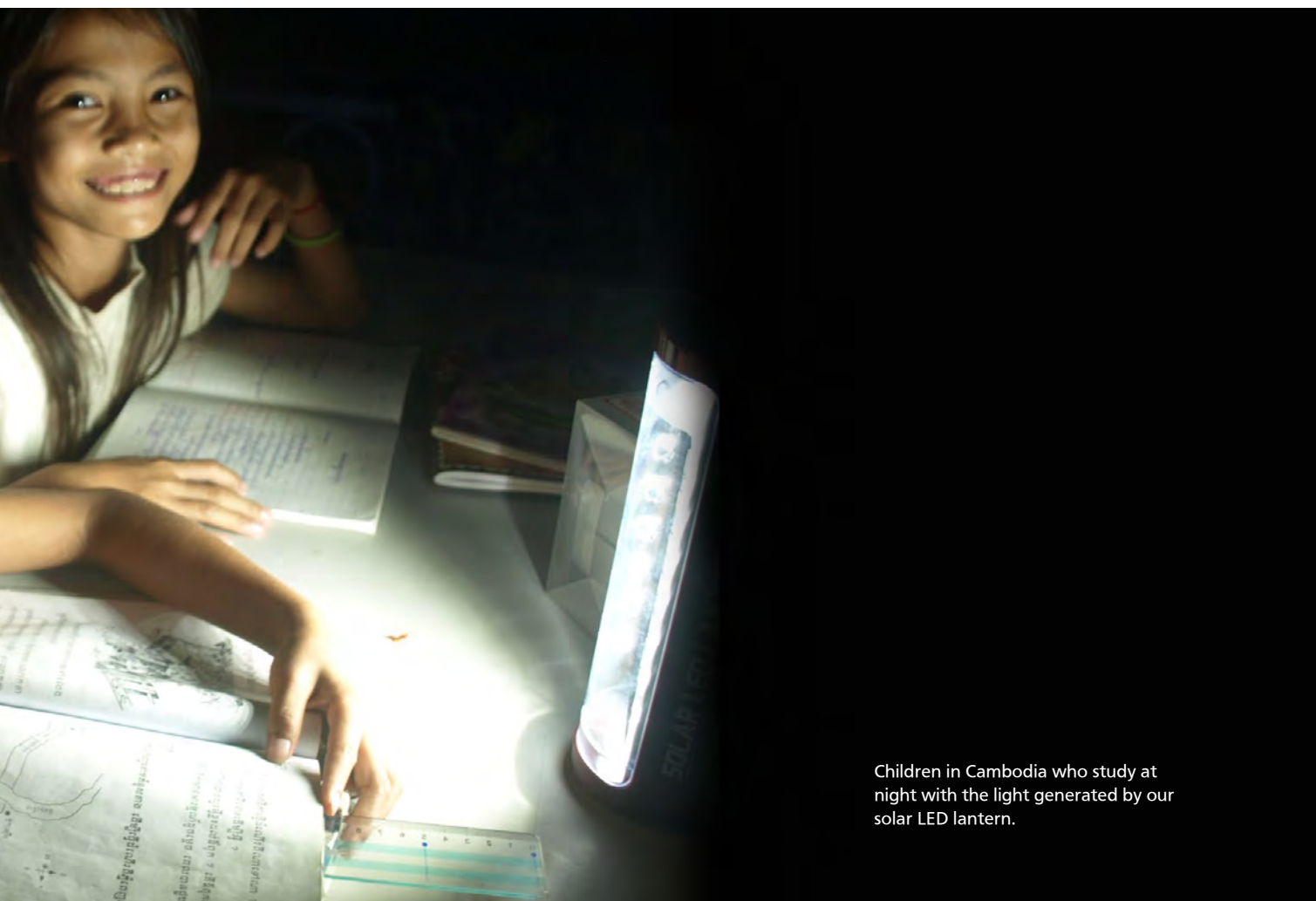
Our solar LED lanterns have not only been used effectively in emerging and developing countries, but also in the areas affected by the Great East Japan Earthquake. We donated 4,000 solar LED lanterns immediately following the earthquake. In areas where damages to power infrastructures were great, resulting in virtually no electricity, our solar LED lanterns were particularly beneficial in bringing temporary emergency lighting. From this experience, we developed a compact solar LED light, and began to sell this product in August 2011.

The solar LED lantern is just one example of our broad efforts to apply our technological know-how and innovative strengths to provide more people with access to technologies that address local sustainability needs and improve quality of life. Other products throughout our company have provided similar benefits, including:

Our CUBE air conditioners in India, are developed through local lifestyle research and analysis, and designed to meet local energy conditions while providing a quieter sound during use; and

Our market-specific refrigerators for Indonesia, developed with our low power-consumption technologies and adapted to meet local lifestyles needs, which require larger shelf space and bins to store sufficient drinking water, perishable items, and medicine.

Looking forward, our aim is to continue to develop new, inclusive sustainable business models, and assess the long-term marketability, scalability, and sustainability of these models to bring life-changing technologies to more people around the world, contribute to global development goals, and spur new ideas and business opportunities for Panasonic.



Children in Cambodia who study at night with the light generated by our solar LED lantern.



## Global Issue 3

Coexistence of Ecology and Comfort

### OUR SOLUTION

# Fujisawa Sustainable Smart Town

It is becoming increasingly important to provide people with safety, a sense of security, comfort, and sustainability in today's world that is burdened by global warming as well as increasing resource and energy constraints. Moving toward green lifestyles is essential to addressing these social and environmental challenges.

### OUR APPROACH

Panasonic is contributing to the Fujisawa Sustainable Smart Town (Fujisawa SST) as a leading company to spearhead advanced environmental initiatives and provide a business model for human populations around the world to live with safety, a sense of security, comfort, and sustainability.

The Fujisawa SST will showcase our "entire solutions" business, applying our "comprehensive solutions for the entire house, entire building, and entire town" concepts. Specifically, the Fujisawa SST will combine our energy-saving technologies in energy creation, storage, and management—including our Smart Energy Gateway (SEG) technology, which connects equipment and devices over a network—with our objectives for a safe and reliable, energy-efficient living environment.

We also plan to preinstall solar power generation systems, household storage battery systems, and other technologies and eco solutions across Fujisawa SST, including within homes, housing complexes, and commercial, welfare, and public facilities. In total, these activities will help reduce our CO<sub>2</sub> emissions and household water consumption, as well as promote biodiversity through the concept of "wind creation and green networks."





A rendering of Fujisawa Sustainable Smart Town (Fujisawa SST)

## OUR IMPACT

This revolutionary “eco-town” concept has already resulted in a unique collaboration and partnership between Panasonic and eight other leading companies, and the Fujisawa City, a town located approximately 50 km west of Tokyo, Japan.

Bringing together and deploying the best technologies and know-how from our partner companies, we are constructing this innovative smart town on Panasonic’s former factory site in the Fujisawa City, and we expect to complete this project during fiscal 2014.

All partners have committed to work closely together throughout every phase of the project, from the master planning stage to the actual operations of the town that will ultimately house about 1,000 households.

In addition, Fujisawa SST has inspired similar concepts and projects in other parts of the world, including Panasonic’s participation in the Sino-Singapore Tianjin Eco-City project. By implementing our home energy management systems and linking them to the regional or community energy management systems, we will optimize energy use across the entire community and reduce the negative environmental and social impacts caused by rapid urbanization.



### Prosperous lifestyles and services development

“Ecological and comfortable” towns that apply the bounty of nature



### Information network that connects the entire town

Linking diverse equipment and devices over a network. Building a town that is “connected from the very beginning”



### Energy equipment and devices for the entire town

Using the best mix of energy-creation, energy-storage, and energy-saving technologies for the community

# Our Commitments and Engagements

Ever since the founding of Panasonic, we have maintained a strong commitment to contributing to society through our business activities, based on the firm belief that a company is a public entity of society.

We strive to achieve these goals through many initiatives. Our Code of Conduct presents practical guidelines for our employees' day-to-day activities, and our stakeholder engagement practices further our mission to grow our business while benefiting society.

The training courses we regularly provide for managing directors and managers in some regions contain a session on stakeholder engagement. For example, in Europe, we hold periodic meetings with regional management to share cases of engagement with NPO/NGOs and others.

The table on the following page provides a sample list of our stakeholder engagements, communication methods used, and insights or outcomes gained.

## Our Code of Conduct

The Panasonic Code of Conduct provides practical guidance for our employees' day-to-day activities and embodies our management philosophy. Published in 22 languages, our Code of Conduct applies to all Directors, Executive Officers, and employees of Panasonic, and all domain companies and controlled subsidiaries. Each domain and Group company appoints a Director or an Executive Officer to ensure compliance with our Code of Conduct and carry out relevant education and training.

 To view our Code of Conduct, visit:  
[www.panasonic.net/corporate/philosophy/code](http://www.panasonic.net/corporate/philosophy/code)

## Global Advisors' Conference

The Brazil subcommittee of the Global Advisors' Conference held a two-day local meeting in São Paulo, Brazil, on October 12 and 13, 2011. Panasonic Global Advisor Mr. Luiz Fernando Furlan, the former Minister of Development, Industry, and Foreign Trade of Brazil, and subcommittee members joined the conference.

Advisor Furlan delivered the keynote speech on economic trends in Brazil. In his speech, Mr. Furlan strongly asserted that "due to economic instability in Europe, Brazil is forecasted to experience a slowdown of its economic growth. However, the middle-income group is on the rise, and actual demand is increasing. In anticipation of the 2014 FIFA World Cup and the Rio 2016 Olympic Games, active investment in infrastructure is being planned. Therefore, we can expect to realize growth of our comprehensive solutions business and electronics products business for commercial items and systems. To create business opportunities, we must take actions expeditiously."

## Stakeholder Engagement

We believe that to run a successful company in a 21st century business environment, we need to include stakeholder expectations in our decision-making process.

We talk with stakeholders, including customers, employees, investors, suppliers, governments and industry associations, NPO/NGOs, and local communities, in an effort to be more accountable and incorporate their opinions into our business activities.

Our commitment to stakeholder engagement is a vital part of achieving our business objective to expand our global reach.

He also commented that Rio+20, United Nations Conference on Sustainable Development, which will be held in Rio de Janeiro in June 2012, will be a great opportunity for Panasonic, as a Green Innovation Company, to make an appeal to the government and relevant authorities. The outcomes of these Global Advisors' Conference and subcommittee meetings are reflected in our global strategy, as well as in our regional strategies and actions.



Stakeholder	Communication Method	Insights and Outcomes
Customers	<ul style="list-style-type: none"> <li>We conduct a global brand survey to share customer feedback horizontally between Panasonic Group companies and business domains. This global survey contains a set of questions that are relevant to the entire company, as well as a set of questions that are relevant to each market and product.</li> <li>We also employ our Voice of Customer (VOC) activity to hear our customers' views and opinions about our products and services. This feedback is delivered directly to our product planning process.</li> </ul>	The ability to standardize and share customer feedback between Panasonic Group companies and business domains has been useful in helping us to bridge any gaps in global customer satisfaction.
Employees	<ul style="list-style-type: none"> <li>We conduct an employee satisfaction survey annually to listen to and understand the needs and concerns of our employees.</li> <li>We also employ an "employee suggestion system" that receives more than a million suggestions annually from our employees worldwide on how they can contribute to making operational improvements through their daily jobs.</li> </ul>	Overall employee satisfaction in Panasonic remains high despite tough global economic times, but employees feel that active communication with overseas employees has room to improve.
Investors	<ul style="list-style-type: none"> <li>We communicate with our corporate investors regularly to provide them with updates of our financial and business performance.</li> <li>Every year, we ask 800 to 900 investors around the world to rate their willingness to invest in us—survey results are incorporated into our daily investor relations activities.</li> </ul>	<p>In November 2011, we communicated to investors about our growth strategies and outlook for our LED lighting business, one of our key business categories for energy savings initiatives.</p> <p>In addition, in May 2012, we held "Panasonic IR Day" and presidents of newly reorganized (as of January 2012) groups, which included 9 business domains and 1 business sector, explained their business strategies to securities analysts and mass media.</p>
Suppliers	<ul style="list-style-type: none"> <li>We hold seminars and lectures for our suppliers all over the world, including in Asian countries, as well as in China, on our procurement standards and expectations.</li> <li>We revised our Green Procurement Standard, giving priority to strengthen initiatives to reduce the environmental impacts of our entire supply chain with the cooperation of our suppliers. Through our ECO-VC (value creation) Activity, a program we began in FY 2010, we cooperate with our suppliers to develop proposals to streamline costs while also taking into account energy and resource conservation, procurement of recycled materials, and other environmental considerations.</li> </ul>	Increasing societal expectations for supply chain responsibility will require a renewed focus on collaborating with suppliers to improve social and environmental standards throughout the entire supply chain.
Governments and Industry Associations	<ul style="list-style-type: none"> <li>We participate in industry activities, including meetings and committees on environmental issues and activities of the Japan Federation of Economic Organizations, in various capacities. Information collected through these meetings and activities are fed back to the management every month.</li> <li>We host foreign governments who are interested in learning about technologies and innovations that may improve the lives of their citizens.</li> </ul>	Our engagement with a Ugandan government delegation on the topic of clean energy led to the product development of our new solar LED lantern, which provides affordable, renewable lighting.
NPO/NGOs	<ul style="list-style-type: none"> <li>We respond to inquiries to NPO/NGOs that have contacted us, so that we can understand their ongoing requests and expectations of us.</li> <li>We are collaborating with NGOs, as well as international organizations and industry groups to address matters related to "conflict minerals." (See page 59 for a full description of our approach to conflict minerals.)</li> </ul>	Our participation in the OECD pilot program on conflict minerals has provided us with guidance and access to key stakeholder advice on how to develop an effective path forward.
Local Communities	<ul style="list-style-type: none"> <li>We engage with local communities to understand local social, environmental, and educational needs, and to implement programs.</li> </ul>	Understanding local community needs has helped us to prioritize our social investment contributions more effectively.

# Corporate Governance

Our corporate governance system is established under the basic philosophy of “company as a public entity of society.”

## Structure

Panasonic establishes the Board of Directors which is responsible for deciding group-wide important business matters and for monitoring the Directors’ execution of the duties. Also, Panasonic has Corporate Auditors and the Board of Corporate Auditors that are independent from the Board of Directors, and responsible for supervising the Directors’ execution of the duties.

## Board of Directors

The Board of Directors is composed of sixteen directors, two of whom are Outside Directors. An “outside director” is defined as a director of the company who does not engage or has not engaged in the execution of business of the company or its subsidiaries as a director, and who does not serve or has not served as an executive officer, manager, or in any other capacity, as an employee of the company or its subsidiaries.

Both of two Outside Directors are appointed as those who are independent from Panasonic, do not cause the conflict of interests with shareholders of Panasonic, and also, from a neutral and objective standpoint, could enhance and strengthen the effectiveness of supervising the Directors’ execution of the duties.

## Auditors and Board of Corporate Auditors

The Corporate Auditors and the Board of Corporate Auditors supervise the status and operation of corporate governance, and also audit day-to-day activities of management, including the Directors’ execution of the duties. The Board of Corporate Auditors is composed of five Corporate Auditors, including three Outside Corporate Auditors. An “outside corporate auditor” is defined as a corporate auditor of the company who has never been a director, accounting counselor, executive officer, manager, or in any other capacity, as an employee of the company or any of its subsidiaries prior to the appointment.

All three of Outside Corporate Auditors are appointed as those who are independent from Panasonic, do not cause the conflict of interests with shareholders of Panasonic, and also, from a neutral and objective standpoint, could enhance and strengthen the effectiveness of supervising the Directors’ execution of the duties.

Under the Japanese Company Law, a company, except for a “joint stock corporation with specified committees,” is not required to have any audit, nominating and compensation committees, or outside directors. Most Japanese companies, including Panasonic, appoint corporate auditors aiming for strengthening a corporate governance system. In addition, the appointment and dismissal of directors and corporate auditors are determined at a general meeting of shareholders.

## Remuneration Policy for Directors and Corporate Auditors

The amounts of remuneration and bonuses of Directors are linked to individual performance based on Capital Cost Management (CCM)<sup>1</sup>, sales and CO<sub>2</sub> emissions. By implementing these performance evaluation criteria on shareholder interests, Panasonic intends to promote continuous growth and enhance profitability on long-term basis for the Panasonic Group as a whole.

<sup>1</sup> CCM is an indicator created by Panasonic to evaluate return on capital.

Under the Company Law, the maximum amounts of remunerations, including equity compensation such as stock options, bonuses, and other financial benefits given in consideration of performance of duties (collectively, the “remunerations”) of directors and corporate auditors of Japanese joint stock corporations, except for a “joint stock corporation with specified committees,” must be approved at a general meeting of shareholders. Companies must also obtain the approval at a general meeting of shareholders to change such maximum amounts. Therefore, the remunerations of the directors and corporate auditors are subject to the approval of shareholders.

The maximum total amounts of remunerations for Directors and Corporate Auditors of Panasonic is therefore determined by a resolution at a general meeting of shareholders, and thus remunerations of the Directors and Corporate Auditors of Panasonic are under the oversight of shareholders. The remuneration amount for each Director is determined by Panasonic’s Representative Directors who are delegated to make such determination by the Board of Directors, and the amount of remuneration for each Corporate Auditor is determined upon discussions amongst the Corporate Auditors.

 To learn more about our approach to corporate governance, visit: [www.panasonic.net/corporate/governance](http://www.panasonic.net/corporate/governance)

# Risk Management

Our risk management framework and process ensures our ability to continue our operations and mitigate risks. We established a global risk management structure and process to reduce several risks that would prevent us from continuing our business activities.

The aim is to take preemptive actions to eliminate "possible factors" that would prevent us from achieving our business goals.

## G&G Risk Management

To oversee the risk management of the entire Group, we established the Global & Group (G&G) Risk Management Committee. This committee is chaired by the president and includes directors and executive officers who are in charge of corporate operational functions at our headquarters. Corporate operational functions coordinate their efforts through committees associated with risk management, providing a basis to promote measures throughout the company to deal with risks and provide support to business domains and their related companies, together with regional headquarters. The risk management committees are also established in these business domains, related companies, and regional headquarters. Collectively, these committees create a global risk management system that spans the entire Panasonic Group.

 A full description of our risk management approach is provided at:  
[www.panasonic.net/csr/management/riskmanagement/](http://www.panasonic.net/csr/management/riskmanagement/)

We disclose each of our corporate major risks, determined by the G&G Risk Management Committee, each year as a key element of improving our transparency of the management. In fiscal 2012, we

added natural disasters (earthquakes, tsunamis, etc.) to our list of corporate major risks due to the Great East Japan Earthquake, and we initiated a mid-term plan to review our earthquake and tsunami countermeasures at our coastal area production sites.

One major priority in fiscal 2013 will be to manage supply chain risks from the business-to-business (B2B) as well as business-to-consumer (B2C) perspectives. When a disaster or accident that impacts our supply chain encompassing suppliers and providers occurs, the risks to accrue from a B2B perspective could potentially have much wider implications. By affecting suppliers' production and sales, the possibility exists that the production and sales of our customers, not only of Panasonic Group companies, will also be impacted.

### Corporate Major Risks for FY2012

- Quality problems (safety accidents)
- Wars, civil wars, conflicts (including terrorism)
- Trade secret breach (technical, personal information)
- Natural disasters (earthquakes, tsunamis, etc.)
- Soaring raw material cost
- Cartels
- Violation of the export trade control order
- Insufficient responses to risk occurrences

### Corporate Major Risks for FY2013

- Natural disasters (earthquakes, tsunamis, etc.)
- Supply chain disruption
- Trade secret breach (technical, personal information)
- Cartels
- Violation of the export trade control order
- Quality problems (safety accidents)

## CASE STUDY Measures against Floods in Thailand

Major flooding occurred during the 2011 rainy season in Thailand, most severely along the Chao Phraya and Mekong river basins, affecting thousands of lives and causing severe economic damages.

The way we manage and maintain continuity of business during and after disasters is an all-important risk-management initiative.

Out of approximately 200 Panasonic manufacturing factories overseas, more than 20 are located in Thailand. We had a map of our manufacturing areas before the flooding occurred, but our risk assumptions only accounted for flooding of 1–3 meters, whereas the floods reached four meters—three of our factories were inundated. Our employees in Thailand worked quickly and tirelessly to minimize the impact these floods had on our business. In addition to rapidly assessing colleagues' safety, our employees swiftly set up a temporary management headquarters outside the flood zone to manage recovery efforts. We put forth our best efforts toward the recovery and re-production efforts, including

evaluating alternate production options, requiring dispatched engineers to provide support, and recovering inundated moldings and equipment. Despite these efforts, we regrettably caused difficulties especially for our B2B customers as we were not able to completely eliminate the delivery challenges that were caused by the floods.

This experience emphasized the importance of reviewing our risk assumptions worldwide and increasing them wherever needed, including throughout our supply chain. We are currently reviewing the global hazard information of natural disasters.

Our experiences with the Thai flooding as well as the Great East Japan Earthquake have also led us to review our business continuity management (BCM). At the beginning of 2012, we issued a new BCM guideline—a guideline supported by our business continuity management system—that emphasizes reducing risks from various hazards including floods and preparing for them in a way that minimizes our damages.



Our factories inundated at an industrial park in Thailand



Employees work to lift the molds out of the water



Production line inside the temporary factory



Restarted production line



## Our Activities

# One Year after the Great East Japan Earthquake

The Great East Japan Earthquake of 2011 again tested our resolve as a corporate citizen and our approach to risk management in unimaginable ways.

From the hours immediately after the disaster and continuing for the years to come, we are committing our employees, our resources, and our facilities to the recovery efforts. For example, we opened the facilities of our Panasonic Center in Ariake, Tokyo, for use as a shelter for more than 300 people the night of the earthquake, and to date, we have donated more than 900 million yen.

We have also committed our products and technologies, great and small, to the recovery effort. Among our donations are approx. 56,000 flashlights and solar LED lanterns, approx. 580,000 dry batteries, and one "Life Innovation Container" to Minamisanriku Town in Miyagi Prefecture, one of the most affected areas of the disaster. The Life Innovation Container, which contains solar panels and power storage batteries, offered much-needed power to communication facilities.

We will continue to conduct such activities toward the reconstruction efforts. In the energy-starved summer of 2011, we released for sale a new type of large-capacity lithium-ion storage battery system.

Just as with increasing our dedication to rapid innovation, the aftermath of the disaster has strengthened our resolve to focus on disaster-prevention and review of business continuity plan (BCP). For example, at our factory in Fukushima Prefecture, we updated our BCP to include reinforcing the building, anchoring equipment to prevent it from falling over, and treating the windows so that the glass would not scatter when broken, among other measures. Additionally, in the procurement of important parts, we have adopted a policy of using multiple parts manufacturers located in different regions. We will apply this knowledge to other locations as well.



The Life Innovation Container donated to Minamisanriku Town in Miyagi Prefecture

### Panasonic Group's Contributions (as of March 11, 2012):

- **Donation by company:** approximately 370 million yen
- **Donations by employees (including labor unions):** approximately 421 million yen
- **Charity donation from proceeds at the Panasonic Open Golf Tournament:** 40 million yen (as scholarships of Miyagi, Iwate and Fukushima prefectures suffered from tsunami)
- **In-kind donation:** over 94 million yen (includes a Life Innovation Container, radios, TVs, dry batteries, flashlights, LED neck lights, solar LED lanterns, solar lights, electric kettles, electric thermo pots, humidifiers, microwave ovens, etc.)



# Activity Highlights

In pursuing sustainability, we are focusing on the areas of: our customers, the environment, our supply chains, our employees, human rights, fair operating practices, and community involvement and development.

Each of these aspects is necessary not only to our global growth as a business, but to our commitment to leading the world as a responsible corporate citizen. Through our dedication to continuous improvement in all of these areas, we believe that we can achieve our business philosophy of making the world a more sustainable and prosperous society.

## Customers



As we continue our global expansion, our customers in emerging markets will be important partners to help us meet local sustainability needs. While we must continue to develop innovative technologies, such as environmental conscious products, we must also strive to develop solutions that respond to local needs and issues through customer communication.

24

## The Environment



Our business goal is not only to develop products and solutions that help our customers meet their sustainability needs, but also to minimize the environmental impacts of our operations and business activities around the world. This commitment is how we will achieve our vision to become the No. 1 Green Innovation Company in the Electronics Industry.

38

## Supply Chain



We recognize that our responsibility extends beyond our own operations. We must make every effort to ensure that our business, including our suppliers' activities, contributes to the advancement and improvement of society.

56

## Employees



We rely more than ever on our employees to be the foundation of our business progress. We are committed to making our global workforce a central part of our growth strategy, with satisfied, diverse, safe, and respected employees.

60

## Human Rights



We respect fundamental human rights, comply with the laws and regulations of every country we operate in, and always strive to provide equal opportunity for employment. We also value individuals' differences and respect their privacy. These principles have been set out in our Code of Conduct, and we respect the spirit of our code.

66

## Fair Operating Practices



As a company aiming for growth in markets around the world, we must respect fair and free competition and the standards of compliance in each region we carry out our business activities.

68

## Community Involvement and Development



Our dedication to responsible, global growth must look far beyond the short-term perspective. We therefore are focused on inspiring the next generation of sustainable growth.

70

# Customers

Our pursuit is to create products and solutions that “innovate the lives of customers around the world.” As we continue to respond to structural changes that are occurring in many of our key markets around the world—emerging and developed—we recognize that meeting the sustainability needs of our customers will take an increasingly local approach.



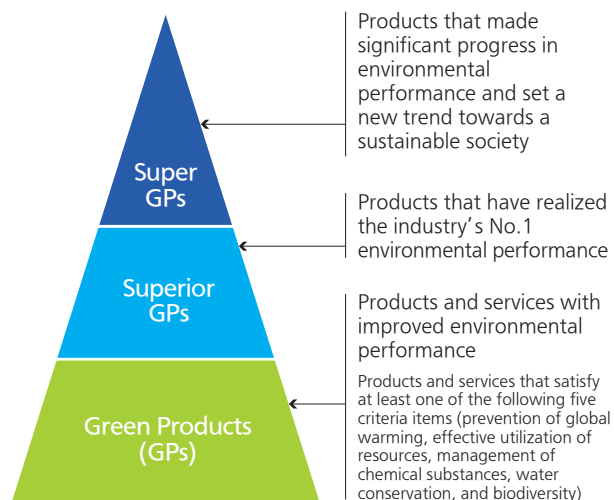
## Eco-conscious Products

### Initiatives for Eco-Conscious Products (Green Products)

We use a product assessment system that evaluates the environmental impacts of our products and services starting at the planning and design stages. Based on our criteria, we accredit our products and services that achieve high environmental performance as Green Products (GPs). Furthermore, we accredit our products that have achieved top environmental performance in the industry as Superior GPs. Products with trend-setting environmental performance toward achieving a sustainable society are accredited as Super GPs.

In the GP assessment system, we assess the performance of our products in terms of prevention of global warming, effective utilization of resources, and management of chemical substances by comparing not only among our own products but also with competitors' products. In fiscal 2012, we took steps to further enhance our accreditation criteria by adding water conservation and biodiversity to existing items. This has in turn enabled the creation of a wider range of GPs.

#### Green Product accreditation criteria



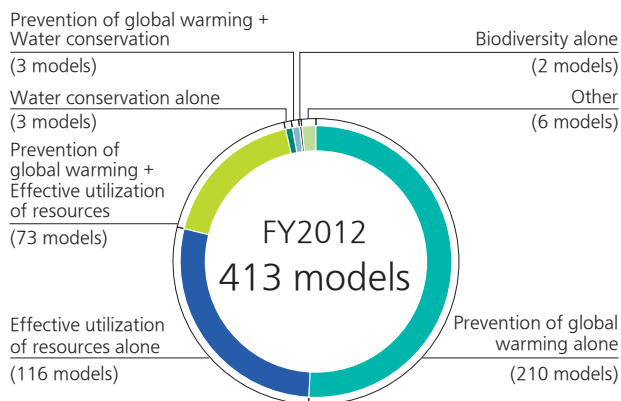
### No. 1 Eco-conscious Products (Superior GPs)

After achieving our fiscal 2011 target of developing 90 percent or more GPs in three consecutive years since fiscal 2006, we decided to shift the focus of our activities to the creation of Superior GPs. In fiscal 2011, we enhanced our criteria for Superior GPs to maintain the industry's No. 1 status for as long as possible when products are launched. After first certifying 19 models in fiscal 2005, we accredited 413 models globally in fiscal 2012. We also expanded the number of global models in each of our regions compared to fiscal 2011.

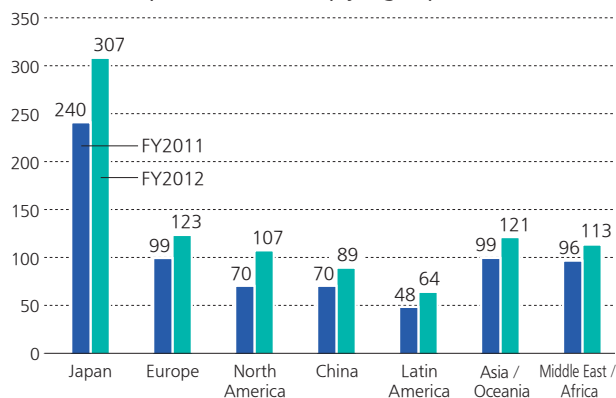
In this way, by working to maintain and expand the number of Superior GPs, we are increasing our customers' selection options and opportunities. Furthermore, we are focusing on lifting the ratio of Superior GP sales to total sales to 30 percent by fiscal 2019, one of our Green Indexes. We achieved a ratio of approximately 13 percent in fiscal 2012. In addition, we expect to certify our fiscal 2012 Super GP products in June 2012.

 For a list of certified Green Products, visit:  
[www.panasonic.net/eco/products/gp/list](http://www.panasonic.net/eco/products/gp/list)

#### Number of Superior GP models (by feature)



#### Number of Superior GP models (by region)



Note: Global models sold in multiple regions are counted as one in each region.

## Initiatives for Resources Recycling-oriented Products—from Product to Product

We use a lot of resources in our lives; however, whether it is gold, silver, copper, or oil, our Earth has limited resources. To use our limited resources more wisely, our company has been promoting “Recycling-oriented Manufacturing” since fiscal 2011. (For a full description of how we define Recycling-oriented Manufacturing, see page 46.)

In February 2012, under the concept of “from product to product,” we launched a new series of products that address our future of limited resources. Known as the Resources Recycling-oriented Products series, these products use resources that are extracted from used products through Recycling-oriented Manufacturing.

This series consists of four major Panasonic appliances: refrigerators, washing machines, vacuum cleaners, and rice cookers. With our unique recycling technology, resources are extracted from used products and reused to the fullest extent. For example, glass from screens of discarded cathode-ray tube (CRT) televisions is processed into a glass wool insulation material to line our refrigerators. We also utilize plastics that are recovered at our recycling plants, such as those recovered from air conditioners, to manufacture new washing machines, vacuum cleaners, and rice cookers.

Previously, recycled plastics could not be widely used in products, but we have expanded the range of their application by developing new technologies that produce a heat- and flame-resistant material made from recycled plastic.

In addition, by optimally combining anti-oxidizing agents with additives in the sorting of various mixed plastics, we have significantly extended the strength and life of recycled plastics, as well as the quality of their appearance. We have also adopted a consistent “Earth beige” coloring to convey a natural look.

### • Top-unit Refrigerator (NR-F506T-X)



Glass from discarded CRT televisions is processed into an ultra-fine glass fiber of approximately 4 μm. This fiber is then turned into vacuum insulation material and used in refrigerators.

Ratio of recycled material used in glass wool for vacuum insulation material.

90%

Vacuum Insulation Material

### • Drum-type Washer/Dryer (NA-X7100L-X)

Previously recycled plastics contained foreign particles that left external black lines and blemishes. As a result, they were used exclusively as an internal material. We developed a technique to remove the aforementioned impurities enabling the use of recycled plastics in the frames of washer/dryers.

Ratio of recycled plastic (containing at least 80% recycled materials) within the plastic components used in the product.

26%



Under-frame

### • Cyclone Vacuum Cleaner (MC-SS310GX-X)

We are using recycled plastic materials in cosmetic applications by coating them with a layer of high extension film. Utilizing our 3D in-mold decoration method, our products now exhibit high-quality and appealing design.

Ratio of recycled plastic (containing at least 65% recycled materials) within the plastic components used in the product's body.

17%



Body

### • Steam Induction-heating Rice Cooker (SR-SX101-X)



Body

Our technologies that optimize the properties of filling materials introduced to recycled plastics have increased the strength of products particularly at high temperatures, significantly extending product life.

Ratio of recycled plastic (containing at least 89% recycled materials) within the plastic components used in the product's body.

20%



## Energy-creating Products

### Contribution in Reducing CO<sub>2</sub> Emissions through Energy-saving Products

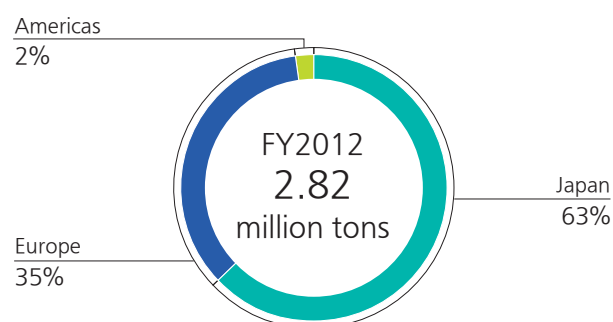
We actively develop our energy creation business to maximize the size of contribution in reducing CO<sub>2</sub> emissions.<sup>1</sup> By delivering photovoltaic power generation systems and household fuel cell cogeneration systems as means to create necessary electricity with few CO<sub>2</sub> emissions, we reduce CO<sub>2</sub> emissions in society.

<sup>1</sup> For a full description of how we define the "size of contribution in reducing CO<sub>2</sub> emissions," see page 39.

While our initial target of the size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products was 3 million tons, the result was 2.82 million tons in fiscal 2012, driven mainly by the impacts of lower-than-expected sales of our solar panels. Approximately 99 percent of the result was driven by our photovoltaic power products, which were sold primarily in Japan and in Europe.

We will continue to make progress toward achieving our target for the size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products of 3.6 million tons in fiscal 2013.

#### Size of Contribution in Reducing CO<sub>2</sub> Emissions (by Region)<sup>2</sup>



<sup>2</sup> This graph does not include data for China and the Asia Pacific region (except India), since the amount of CO<sub>2</sub> emissions reduced fell below zero in these regions due to a decrease in sales quantities. Also, it does not include data for India because Panasonic does not sell these products in this region.

### Photovoltaic Power Generation System

Photovoltaic power is generated by transforming solar light energy into electricity by semiconductors. The amount of power generation depends on season, weather, and time, but unlike thermal power generation, in which fossil fuels are burned to generate electricity, no CO<sub>2</sub> exhaust gas is emitted during photovoltaic power generation.

Panasonic Group's HIT<sup>3</sup> solar panels provide high-power generation efficiency and output per unit area and are

lightweight and compact, allowing sufficient power generation even with narrow roofs. In March 2012, we began taking orders for a residential solar power system, HIT240/233 Series, which is a line of household solar panels that has low energy-generation loss and current resistance, and boasts the world's highest energy conversion efficiency rate.<sup>4</sup>

<sup>3</sup> "HIT" is a registered trademark and an original technology of the Panasonic Group.

<sup>4</sup> Based on the Japan Photovoltaic Energy Association standard calculation method for the amount of energy generated annually for Japan's residential photovoltaic power generation system industry. As of January 2012 (surveyed by Panasonic).



Residential solar power system

### Household Fuel Cell Cogeneration System

Fuel cell cogeneration systems provide high-power energy efficiency and conservation by generating electricity through an electrochemical reaction between oxygen in the atmosphere and hydrogen extracted from city gas, and can heat water with the heat generated from the reaction at the same time.

In May 2009, we launched our household fuel cell cogeneration system named ENE-FARM in partnership with a domestic gas company to lead the world in bringing fuel cell cogeneration technology into the home for residential use. By December 2011, we shipped a total of approximately 11 thousand units. As of April 2011, we have reached a power generating efficiency rate of 40 percent (LHV<sup>5</sup>), and have further simplified our system, as well as reduced the size of key components. As a result, we have begun selling an improved model that is also better priced and requires the least installation space in the industry.

<sup>5</sup> Lower Heating Value: The value determined by subtracting the latent heat of water vapor from the amount of heat generated when fuel gas is fully combusted.



Household fuel cell cogeneration system

## Energy-storing Products

### Industry- and Residential-use Lithium-ion Storage Battery Systems

Energy-storing products store and use power when needed. These energy-storing products play an important role in ensuring the stable supply of power through the use of renewable energy, such as solar and wind power. Further attention has gathered since the Great East Japan Earthquake as to the importance of these products in alleviating electricity shortfalls during power outages and at times of disaster.

In addition to industrial applications, we began taking orders in November 2011 for residential-use lithium-ion energy storage systems (1.6 kWh/3.2 kWh type). This system has a long track record in the notebook PC market, and uses an energy storage unit comprised of a large number of cylindrical, 18,650-size (65mm height X 18mm diameter) lithium-ion batteries with high voltage and capacity. In the event of a power blackout, the system provides the electric power to lighting and communications equipment automatically. Even during normal times, the timer setting can be used to automatically limit the amount of power drawn from

the grid during peak electricity demand, and still operate connected equipment using the energy already stored in the battery system.

Because Panasonic's energy-storage system falls within the scope of the Japanese government's fiscal 2012 stationary lithium-ion battery energy storage system subsidy program, individuals installing energy-storage systems can earn a rebate of one-third of the overall expense, up to a maximum of 1 million yen.



Industrial- and residential-use lithium-ion energy storage system

### Message from Panasonic's Executives

"The global challenges of climate change and energy scarcity require revolutions in technologies and new business approaches related to creating, storing, and saving energy.

To respond to such environmental needs of our customers, we're integrating these environmental needs into the development and sale of innovative energy products, such as highly efficient solar panels, lithium-ion rechargeable batteries, and energy-efficient battery storage systems.

Achieving this innovation requires an understanding of local needs. Every location is different, with unique government-established energy policies, feed-in tariffs,

**Masato Ito,**  
President, Energy Company

and level of environmental awareness of the nation. We constantly seek feedback from the marketplace so that we can develop, manufacture, and sell products that respond to local customer expectations. We also ensure a high level of safety and reliability, supported by the most advanced battery technologies, and the most important factor for battery business to differentiate ourselves from competitors is our 'continuous technology development.'

Panasonic's Energy Company will promote its business globally in the future as a core business domain that is responsible for the energy solutions of the entire Panasonic Group, emphasizing its creating, storing, and saving energy, and energy management solutions."

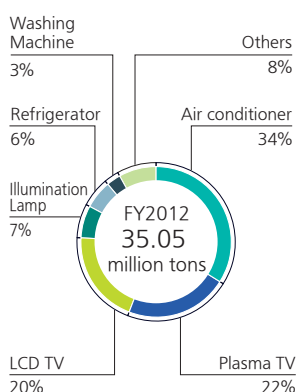
## Energy-saving Products

### Contribution in Reducing CO<sub>2</sub> Emissions through Energy-saving Products

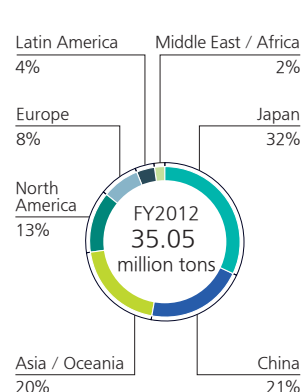
In fiscal 2012, we aimed to increase the size of contribution in reducing CO<sub>2</sub> emissions through energy-saving products to 32 million tons. Thanks to the positive flow-on effects from the eco-point incentive program implemented by the government in Japan, as well as the initiative put forward by the Chinese government to promote the replacement of used home appliances, we successfully exceeded our target by increasing the size of contribution in reducing CO<sub>2</sub> emissions through energy saving products to 35.05 million tons. On an individual global product basis, our air conditioners and TVs accounted for 76 percent of the contribution in reducing CO<sub>2</sub> emissions through energy-saving products. By region, Japan and China, as well as other parts of Asia Pacific accounted for 73 percent of the contribution in reducing CO<sub>2</sub> emissions through energy-saving products.

In addition to enhancing the energy-saving performance of our products, we have been promoting the development of ECONAVI products since fiscal 2010. ECONAVI is a sensor technology that enables consumer electronics equipped with this function to automatically find ways to reduce energy waste and conserve power. As of April 2012, 21 Panasonic product lines for sale in Japan were equipped with the ECONAVI function (compared with 16 as of March 2011). We have also begun to equip products sold in Asia with ECONAVI. In addition, with stand-by power regulations being strengthened, we will expect to reach 0.5W or less in stand-by power for 295 of our models by April 2012 globally. Committed to the development and dissemination of energy-saving products, we aim to have 34.85 million tons of contribution in reducing CO<sub>2</sub> emissions through energy-saving products in fiscal 2013.

Size of Contribution in Reducing CO<sub>2</sub> Emissions (by Product)



Size of Contribution in Reducing CO<sub>2</sub> Emissions (by Region)



## Examples of No. 1 Energy-saving Products

### Air Conditioners

By increasing the total length of the fan and heat exchanger to improve the design of the indoor unit and by improving the performance blast through a shape change of the outdoor fan, we improved the APF<sup>1</sup> of our Model CS-X282C in Japan by 0.3 points compared to our fiscal 2011 model. This air conditioner is equipped with our ECONAVI function, which senses the presence of people and goods, and sends wind to the places where people are located. It also runs in an energy-saving manner by sensing changes in the sunlight.

In addition, the installation of the "Energy Charge System," which stores extra energy from the compressor and uses it for heating, enables heating even during defrost mode and provides a higher temperature of warm air at the start of the "warm air" mode.

<sup>1</sup> APF: Annual Performance Factor

Energy-saving Performance Annual Performance Factor

FY2011 Model (CS-X281C)	6.7
FY2012 Model (CS-X282C)	7.0

### Refrigerators

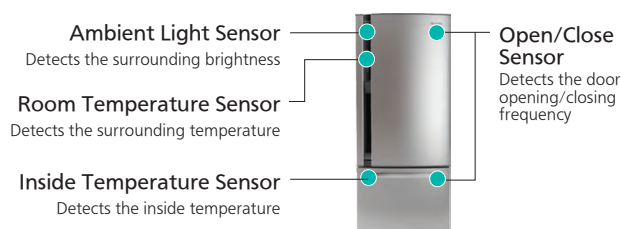
Using our inverter control compressors and internal LED lighting while increasing storage capacity, we reduced the annual power consumption of our Model NR-BY602X-S, a refrigerator for the Thai market, by 25 percent compared with our fiscal 2007 model, achieving 460.63 kWh. As a result, our technology obtained the highest level (Level 5) of Thailand's EGAT.<sup>2</sup>

In addition, this refrigerator is equipped with our energy-saving ECONAVI function with four sensors to operate based on lifestyle patterns.

<sup>2</sup> EGAT: The Electricity Generating Authority of Thailand

Energy-saving Performance Annual Power Consumption

FY2007 Model (NR-B41M1/Capacity: 405.5 liters)	616.85 kWh
FY2012 Model (NR-BY602X-S/Capacity: 546.0 liters)	460.63 kWh





## Comprehensive Energy Solutions

### Virtually Zero CO<sub>2</sub> Emissions throughout the Entire Home

Amid growing calls for the shift to a low-carbon society, as a company that provides a range of products deeply rooted in people's lives, we bring to fruition Comprehensive Solutions for the Entire Home—which range from stand-alone home appliances to entire houses themselves—to help customers reduce their CO<sub>2</sub> emissions at home. In this context, we advance the four energy concepts of “create energy,” “store energy,” “save energy,” and “manage energy.” First, we save energy by increasing the energy efficiency of home appliances and the insulation efficiency of the house itself. By doing so, we can reduce power consumption in the entire home. For energy still necessary even after saving, we create energy by promoting low-emissions photovoltaic power generation and fuel cells, and store energy by drawing on household lithium-ion accumulator batteries. Through this total energy management system, we aim to have virtually zero CO<sub>2</sub> emissions throughout the entire home. Since April 2009, we have displayed a model utilizing this concept at our “eco ideas HOUSE” in Tokyo, Japan.

In addition, our “Energy Creation-storage Linked System for Home”—developed by our Eco Solutions Company—started to take orders in March 2012. This system is not only useful in the event of power outages, but also during normal times, since it improves energy efficiency, controls the overuse of electricity, and reduces the environmental burden through the combination of solar battery and

lithium-ion storage battery units. We have also started to market our “CASART TERRA SMART,” which is equipped with our Energy Creation-storage Linked System for Home, as well as comprehensive insulation. From this platform, we have enabled a smarter lifestyle that is comfortable and safe and provides virtually zero CO<sub>2</sub> emissions throughout the entire home.

### Promoting Comprehensive Solutions for the Entire Town Worldwide

By extending the scope of our virtually zero CO<sub>2</sub> emissions concept beyond the entire home, we will promote comprehensive solutions for stores, public facilities, and other facilities, as well as entire towns worldwide through our energy systems business. In Japan, we are currently taking part in the Fujisawa Sustainable Smart Town project within our former factory site in Fujisawa City. This facility will utilize and showcase a wide variety of comprehensive energy solutions. Endeavoring to open the town by the end of fiscal 2014, we are aiming for a new town concept that encompasses 1,000 households. In China, we participated in the construction of the Sino-Singapore Tianjin Eco-city and Dalian Best City, both utilizing our energy management system. In addition, we are teaming up with local government agencies in Singapore to create the Punggol Eco-town public housing, total solutions test-bed project.

Our Energy Systems business achieved 519.3 billion yen in sales in fiscal 2012. We will continue to expand our business while creating a comfortable living environment and increasing the size of contribution in reducing CO<sub>2</sub> emissions.

### Message from Panasonic's Executives

**Shusaku Nagae,**  
President, Eco Solutions Company

“We firmly believe that achieving sustainability requires synergy between comfortable living and environmental efficiency.

For this reason, we propose comprehensive energy solutions that solve environmental challenges and improve quality of life at the same time.

Our ambition is captured by a unique project where we are creating “100 Arrows” initiatives and developing new business models that provide comprehensive energy

solutions. For example, our smart city projects in China and Japan include our ‘entire house solutions’ that integrate energy creating, storing, and saving equipment with energy management systems. Furthermore, our solutions for convenience stores in Japan leverage technologies that improve energy efficiency, and are the comprehensive energy business models that can be developed globally.

We have no doubt that these projects will drive the Panasonic Group toward becoming a global eco-solutions company.”

## Solutions for Local and Social Challenges

### Product Development in Emerging Countries

From energy-saving TVs in India to water-saving washing machines in China, we are creating locally-oriented products, designed with the local customers' needs in mind. One important way that we strengthen our locally-oriented product planning and development capabilities is through our global network of lifestyle analysis. These centers, based in key emerging markets including India, China, and Indonesia, assess customers' rapidly changing lifestyle requirements and trends in those markets. These centers collaborate with our Global Consumer Research Center in Japan, which responds to the requirements of each country, achieves further efficiencies, and enhances our capability to develop and design products—all while creating new markets.

#### Lifestyle Research Centers (as of June, 2012)



We are strengthening our emphasis on developing and manufacturing products and solutions locally, establishing new factories in our leading emerging markets. For instance, our new manufacturing plant in India (still under construction) by Panasonic India Pvt. Ltd. (PI) is located in Jhajjar in the state of Haryana, and will start production partially in December 2012. This plant will cover 307,000 m<sup>2</sup> and will have a production capacity of one million air conditioners, 400 thousand washing machines, and 25 thousand welding machines, with plans to expand to additional products in the future.

The Jhajjar factory will enable us to manufacture products locally, and it will also be an environmentally friendly model factory in the Group. We designed the plant to include water and sewage treatment, rain water harvesting facilities, and a recycling center. The plant will also reduce energy consumption through lighting initiatives. This includes the use of a transparent roof, which uses sunlight, as well as LED lamps and solar panels.

In addition to effective energy and water efficiency use, the Jhajjar factory will also start a waste recycling process at the time of its launch, and will be ISO 14001 certified within one year of its operation.

Investing in the social welfare of the surrounding community is also of high importance to us. Panasonic India has therefore made discussions with the state government of Haryana to include, for example, a training facility on-site using our high technologies that will be open to both employees and people living in the surrounding areas of the factory.



Rendering of new factory under construction in Jhajjar, Haryana State, India

Our new plant in Extrema, the state of Minas Gerais, Brazil, established by Panasonic do Brasil Limitada, will have a maximum annual manufacturing capacity of 500 thousand refrigerators and 200 thousand washing machines. The Extrema plant is also being developed as a “regional collaboration” initiative with engineers of Panasonic’s subsidiary in Taiwan and engineers in Japan. By forming this link between Brazil, Taiwan, and Japan, the Extrema plant will be able to share, as well as obtain new technologies and best-practice development and production methods to reinforce its local manufacturing capabilities of refrigerators and washing machines.

Both plants also represent an opportunity for Panasonic to provide employment opportunities, as well as bring forth indirect economic benefits to local communities and businesses.

### Initiatives in the Healthcare Business

We position our healthcare business to be one of the next-generation core businesses, and our activities, products, and solutions today all share the fundamental goal of providing accessible, affordable healthcare for people everywhere.

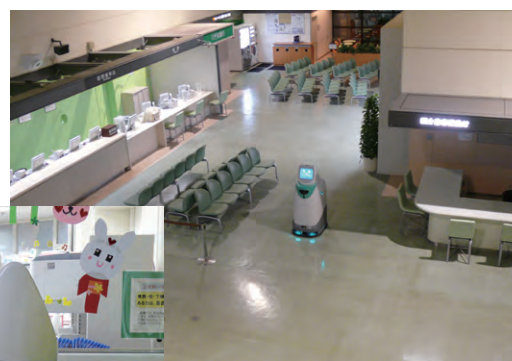
We focus on the “robotization” of in-hospital work to reduce medical-related workloads. We developed the In-hospital Delivery Robot, or HOSPI, to deliver patient medication in a safe, timely, and accurate manner, which is one of the tasks in a hospital. By taking on the task of delivering medication, especially at night, when there are not enough nurses, pharmacists, and doctors, HOSPI enables hospital staff to focus more on providing quality care. We are using this technology at Matsushita Memorial Hospital in Osaka, Japan, and plan to launch this technology in other locations hereafter.



HOSPI can get on and off automatically by using the elevator operation program



Nurses receive patient medicines from HOSPI at the nurses' station



HOSPI is taking on in-house tasks in a hospital at night



## Contribution through “Life Innovation Container” in Areas Facing Power Supply Shortages

### Tanzania

To the Millennium Village of Mbola, Tanzania, one of many villages in Africa that is “off-the-grid” where people live without electricity, we donated our Life Innovation Container, a stand-alone power system with 18 solar panels, 48 storage batteries, and charge-discharge control equipment. Electricity generated by the Container is used for various activities, including audio-visual education for children and mobile phone charging.

We undertake such investments in society by contributing to the progress of local communities and our efforts to strengthen our business activities.



Electricity generated by the Life Innovation Container is used for audio-visual education of Tanzanian children

### Japan

Since the Great East Japan Earthquake of 2011, rebuilding a safe and reliable power and information and communications technology (ICT) infrastructure has become a major local challenge in Minamisanriku Town, a coastal town greatly affected by the devastating earthquake and subsequent tsunami. NTT DOCOMO, INC., Japan’s largest mobile communications operators, has been a leader in the reconstruction efforts, leveraging its mobile communication technologies and forming key partnerships to bring about a swift recovery.

One of those key partnerships has been with Panasonic. Our Life Innovation Container attracted NTT DOCOMO, INC. with its unique features of independent power supply solution with solar generation. To meet the local needs in Minamisanriku Town, we delivered a smaller, modified version of our Life Innovation Container, enabling NTT DOCOMO, INC. to provide its end users with a portable system of wireless communication, sea and river tide level monitoring capabilities, LED-based street lighting, and a self-sufficient back-up power supply. As part of a five-year field demonstration experiment, NTT DOCOMO, INC., with the support of Panasonic’s Life Innovation Container, aims to test this solution and develop a model case for collaborative, total support ICT systems that meet local needs and standards while establishing a more robust foundation for minimizing the adverse impacts of future unexpected disasters in Minamisanriku Town and elsewhere.



Life Innovation Container installed as a tsunami surveillance system

## Product Quality and Safety

The assurance of product quality and safety is one of the most important social responsibilities that we must take on. As we expand our overseas business, we will inevitably face a growing challenge to meet our customers' increasing expectations on product quality and safety. Our expanded production capabilities outside of Japan, expanded outsourcing activities globally, and increased necessity of using recycled materials have added to the complexities of ensuring we continue to meet the high levels of product quality and safety. Regardless of these challenges, we will always strive to improve on our high-level standards for all our customers worldwide.

We base our product quality and safety initiatives on three requirements: 1) to not merely observe international safety standards and official safety laws and regulation but to also make proper use of past experience; 2) to ensure safety not only during normal use, but also during reasonably foreseeable misuse; and 3) to ensure safety throughout the product's lifetime, and that even if the product does break, it never does so in an unsafe manner. We measure our success in terms of "quality loss," which describes financial losses related to claims and quality violations, both during production and once the product is in the marketplace. Overall, our aim is to completely eliminate all corporate announcements on product defects.

The ways in which we are bolstering our capabilities to ensure product quality and safety can be summarized in three areas: 1) training; 2) awareness-raising; and 3) developing infrastructure.

### Training

Since April 2010, our Corporate Engineering Quality Administration Division and Human Resources Development Company have been conducting product safety design trainings for overseas product design employees, covering the basic factors of product safety and providing thorough training of our Panasonic Corporation Safety Standards (PCSS), which set forth basic requirements, design standards, and other standards required to ensure the safety of all products. These training courses are generally held twice per month at our overseas sites, and are presented in the local language to ensure the information is properly imparted.

### Awareness-raising

As we increase our outsourcing of materials from suppliers overseas, our product quality risks will also increase—we must therefore partner with suppliers to increase their level of quality awareness and quality control management. One of the ways in which we achieve this is through our Technical Center of SANYO Energy (Suzhou) Co., Ltd., Energy Company of Panasonic Group, which hosts regular quality meetings for its suppliers of connectors in eastern China to establish quality standards, create plans for improvements, and report on results achieved. These meetings help ensure a supply of high-quality materials from any of our suppliers.

### Developing Infrastructure

We have established satellite offices in Shanghai, China, and Singapore to support our local operations on product safety and quality within our Asia region. The mission of these satellite offices is to 1) support the problem-solving of local companies' product design and manufacturing, 2) support local product inspections, and 3) analyze market-based quality information. Panasonic AVC Networks Kuala Lumpur Malaysia, for instance, has already taken advantage of this by requiring all of its engineers to take PCSS training at one of our satellite quality offices during their first year with the company.



Product safety design training held in Singapore

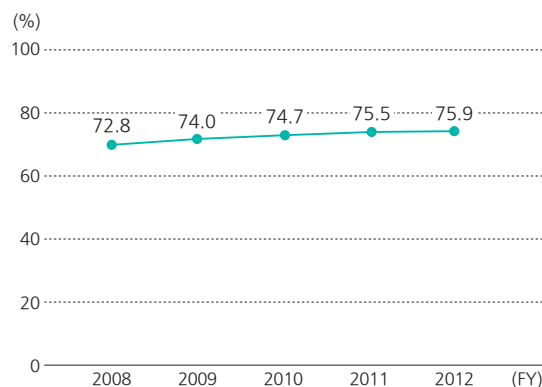
## Progress in Responding to Accidents Involving FF-type Kerosene Heaters

In 2005, five product safety incidents occurred involving FF-type kerosene heaters manufactured by Panasonic from 1985 to 1992, exposing customers to carbon monoxide poisoning that resulted in hospitalisation and accidental death. Panasonic has taken these incidents very seriously and has been taking every possible measure and precaution to prevent their reoccurrence.

Following these incidents, we commenced emergency measures and have been working to discover, repair, and replace these products. We have also been continuing a program of comprehensive public announcements through television and leaflets and by making door-to-door visits to households and businesses that may be using these corresponding heaters.

In fiscal 2012, led by the staff of the Corporate FF Customer Support and Management Division, we engaged in search activities ("local search activities") to find products that have not yet been located, to step up the recovery of products from customers who had their units inspected or repaired in the past, and to confirm the condition of products before the winter arrived.

### Total Units Identified as a Percentage of Total Units Sold



Note: Units identified: recalled product units, units still in use after inspection and repair, units confirmed to have been disposed of by customers, etc.

The local search activities focused on the following:

- (1) Surveys of stores that handled these products;
- (2) Door-to-door surveys of all residences in the specified areas; and
- (3) Requests for cooperation from local government.

We also continued to run comprehensive public announcements, particularly at the beginning and at the end of winter, which included nationwide TV commercials, newspaper inserts, and the utilization of Town Plus, a direct mailing service, to approximately 10 million households in cold-weather districts.

In fiscal 2012, we added 700 units to our list of products discovered or confirmed to have been discarded. In total, 115,500 units were recorded, bringing the percentage of total units assessed to 75.9 percent as of March 31, 2012.

We are still finding products every month, some of which are units that customers have continued to use un-repaired and without realizing their potential harm. With the help and cooperation of those involved, we will continue our search activities until we find every last unit.



Door-to-door checks of houses that have the ventilation flue characteristic of the corresponding model.



## Environmental Labeling

Keeping our customers well informed about our product features and attributes is a vital step in maintaining trust with our customers.

Just as our customers around the globe are increasing their awareness about the environment, communicating the environmental performance attributes of our products is also becoming increasingly important. For this reason, we describe that a given product is environmentally conscious by putting environmental labels on the product, in our product catalogues, and in our advertising materials at retailers. This labeling is designed to convey our environmental technology information on the product in an easy-to-understand manner to help our customers make smart choices when considering which products to purchase.

We are intently focused on acquiring international environmental labels as part of our efforts to enhance our activities to reduce our negative impacts on the global environment.



Examples of international environmental labels

For more on our environmental labels, visit:  
[www.panasonic.net/eco/products/env\\_label](http://www.panasonic.net/eco/products/env_label)

## Information Security

In an increasingly globally interconnected world of information networks, we take extra precautions to make sure we keep our customers' information safe and securely protected. We also properly supervise information, based on our basic philosophy for information security, to use the customer information that we have properly.

### BASIC PHILOSOPHY FOR INFORMATION SECURITY

In accordance with the basic management philosophy, Panasonic is dedicated to using its outstanding technologies, products and services to earn the satisfaction and trust of customers. Information security is vital to accomplishing this goal. This includes customer, personal, financial and other categories of information. Positioning information security as one of our most important strategies, we take the following actions with the aim of helping maintain the integrity of today's information-based society.

1. Information security systems  
Each organizational unit has its own information security system for properly supervising information based on prescribed rules and procedures.
2. Management of information assets  
To protect the security of all information, each type of information is managed by clarifying correct handling in accordance with its importance and level of risk.
3. Education and training  
We have continuous information security education and training programs for all executives and employees. Activities reinforce awareness of the importance of information security and associated rules. Violators are subject to strict penalties.
4. Products and services that can be used with confidence  
We have security measures for customer information so that customers can use Panasonic products and services with confidence.
5. Compliance with laws and regulations and continuous improvements  
We comply with all applicable laws and regulations as well as ethical standards and make continuous improvements to information security as required to respond to changes in the environment.

We believe that the proper supervision of customer and business partner information is essential to our ability to remain a trustworthy company in society. In order to maintain our growth as a global company, it is also vital to operate speedy product development, production, and sales activities by utilizing technical information that strengthen market competitiveness, while protecting it properly.

Furthermore, we are committed to earning the ISO/IEC 27001 international certification for information security.

## Communication Policy of Panasonic

In our Code of Conduct, we make clear our policy on how we communicate our policies, products, services, and technologies.

Specifically, our aim is to provide fair and accurate information to our customers and other stakeholders, and at the same time continually listen to and observe the public to learn from them and reflect their opinions in our business, marketing, and sales activities. We will also not make representations that are deceptive, misleading, fraudulent, or unfair. Our advertisements shall not be defamatory or of a political or religious nature. Finally, we aim to develop and demonstrate both our creativity and innovation in our corporate communication activities and impress on consumers that they can trust our brands.

## Customer Satisfaction

Our pursuit to create products and solutions that “contribute to the well-being of people worldwide” is a fundamental commitment to ensure that we continuously satisfy our customers’ expectations. We have established the Global Consumer Marketing Sector and reorganized and widened the function of the Corporate CS Division to carry out this commitment and provide ongoing leadership and support to improve customer service in all of our markets worldwide, such as by conducting trainings at sales sites, as well as providing service support.

Customer service is a core business element for Panasonic, and the Corporate CS Division aims to create and deliver customer service that instills reliability, peace of mind, and excitement in customers. To achieve these aims, the Corporate CS Division works with sales and marketing companies in various countries and regions around the globe to carry out its activities. Developing initiatives based on the collective wisdom of our Japanese and overseas personnel, the Corporate CS Division implements them through our local CS departments, who are closest to our customers.

The Corporate CS Division is responsible for ascertaining market-level product quality information and intensifying customer feedback related to requests that strengthen Panasonic’s overall global risk management and governance.

In fiscal 2013, the Corporate CS Division placed special emphasis in developing new standards and benchmarks for assessing global customer satisfaction that it can use to quantitatively compare performance across business units, markets, and products, as well as comparing its level against competitors.

We also held our global CS meeting in March 2012. Participants reached consensus on the new direction of the Corporate CS Division and confirmed that further information sharing and collaboration between the Corporate CS Division and the regional CS departments will be needed to ensure that customer service and satisfaction continue to improve on a global basis.

Enhancing our dedication to customer service and satisfaction will provide us with many business and social responsibility benefits, allowing us to ensure product quality and safety while also strengthening our activities to develop products that meet local customers’ needs.

# The Environment

Our commitment to reducing our environmental impact is core to our business and central to our Group vision to become the “No. 1 Green Innovation Company in the Electronics Industry” in 2018, the 100th anniversary of our founding. This commitment is exemplified in our products and embedded throughout our global business activities and initiatives, such as through our energy saving activities in our factories and offices, as well as through our Recycling-oriented Manufacturing.



Kasai Green Energy Park (Kasai City, Hyogo, Japan) is an eco-conscious factory consisting of EV lithium-ion batteries and is furnished with an energy management system that controls energy creating, storing, and saving equipment.



## CO<sub>2</sub> Reduction

### Size of Contribution in Reducing CO<sub>2</sub> Emissions

One of the long-term environmental targets set by the international community is to reduce emissions of CO<sub>2</sub> and other GHGs by 50 percent from the 2005 level by the year 2050. To achieve this, CO<sub>2</sub> emissions should “peak out” (reach a peak and begin decreasing) during the period from 2020 to 2030.

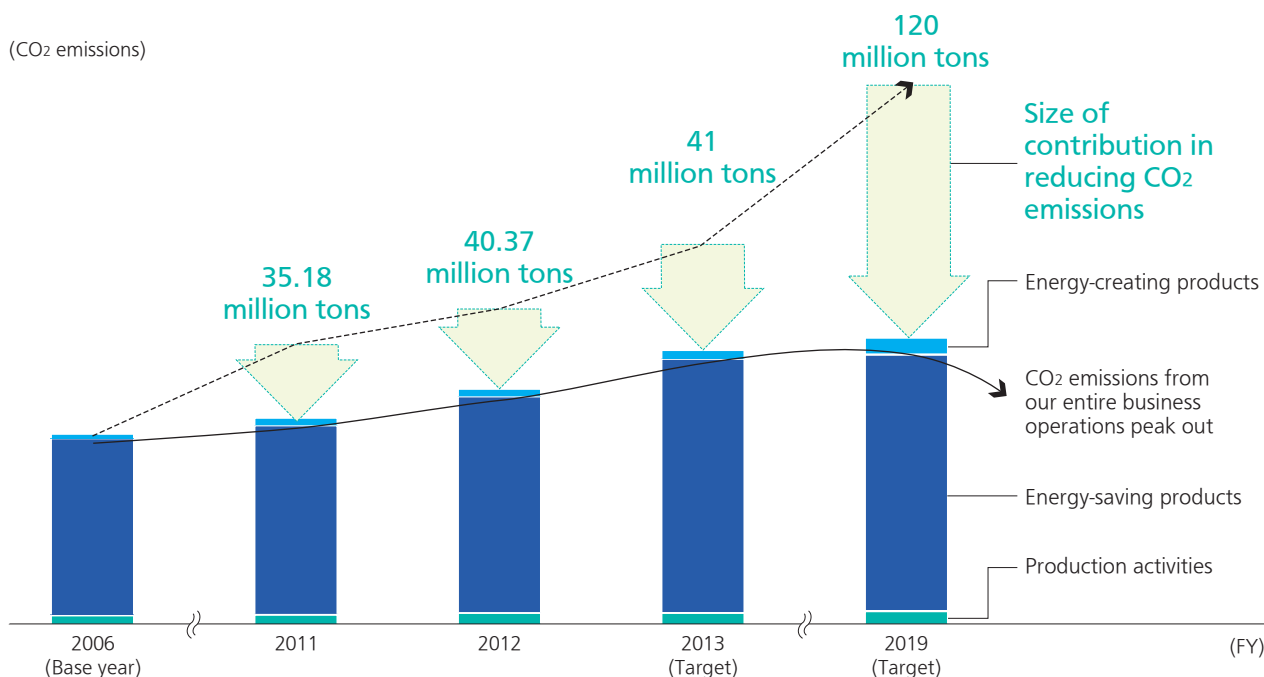
We will endeavor to ensure that CO<sub>2</sub> emissions from our entire business operations—not only from our own production activities but also from the use of our products by customers—peak out in fiscal 2019, the 100th anniversary of our founding. To this end, we must continue making even greater efforts in emissions reduction.

Based on this recognition, we have introduced a unique indicator—the “size of contribution in reducing CO<sub>2</sub> emissions”—to accelerate emissions reduction, targeting both our products (for energy saving and energy creation) and production activities. The size of contribution in reducing CO<sub>2</sub> emissions is defined as the amount achieved by deducting the actual emissions from the amount that would have been emitted without improvements, such as the energy-saving performance of our products and productivity, from fiscal 2006. In other words, it reflects the continuous efforts being made to reduce CO<sub>2</sub> emissions. We will maximize the size of contribution in reducing CO<sub>2</sub> emissions and achieve peak out of net CO<sub>2</sub> emissions as early as possible.

The size of contribution in reducing CO<sub>2</sub> emissions came to 40.37 million tons in fiscal 2012. We aim to increase the amount to 41 million tons in fiscal 2013 and eventually to 120.00 million tons in fiscal 2019.

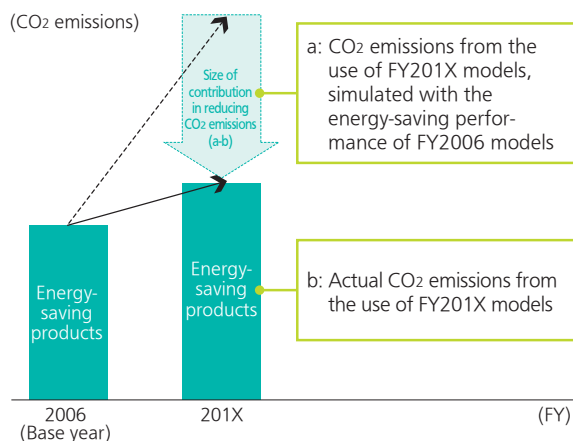
### Medium to Long-term Targets and Actual Results of the Size of Contribution in Reducing CO<sub>2</sub> Emissions

(CO<sub>2</sub> emissions)



We will improve the energy-saving performance of our products to reduce the energy consumed in using our products. The more energy-saving products are introduced and promoted, the size of contribution in reducing CO<sub>2</sub> emissions will further increase.

### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Energy-saving Products



a. Annual power consumption of the model sold in FY2006<sup>1</sup> x Sales quantity in FY201X x CO<sub>2</sub> emission factor<sup>2</sup> x Product life<sup>3</sup>

b. Annual power consumption of the model sold in FY201X<sup>1</sup> x Sales quantity in FY201X x CO<sub>2</sub> emission factor<sup>2</sup> x Product life<sup>3</sup>

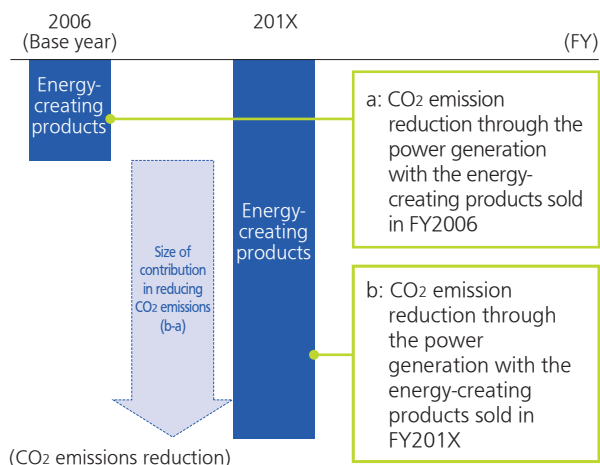
<sup>1</sup> For each product category, the model that was sold in the largest quantity in the region was selected.

<sup>2</sup> Regional CO<sub>2</sub> emission factors (kg-CO<sub>2</sub>/kWh) used: 0.410 (Japan), 0.487 (Europe); 0.579 (North America); 0.740 (China); 0.927 (India); 0.527 (Asia Pacific, Northeast Asia); 0.332 (Latin America); 0.327 (other regions).

<sup>3</sup> Number of years during which spare parts for the product are available (defined by Panasonic).

By using electricity generated by solar power generation and such, we can reduce CO<sub>2</sub> emissions from thermal power plants. We will further foster our energy creation business to make an even greater contribution to CO<sub>2</sub> emissions reduction.

### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Energy-creating Products



a. Annual power generation capacity of the model sold in FY2006 x Power generation factor<sup>4</sup> x CO<sub>2</sub> emissions reduction factor<sup>5</sup> x Product Life<sup>6</sup>

b. Annual power generation capacity of the model sold in FY201X x Power generation factor<sup>4</sup> x CO<sub>2</sub> emissions reduction factor<sup>5</sup> x Product Life<sup>6</sup>

<sup>4</sup> For photovoltaic power generation: 1,193 kWh/kW (considering sunshine conditions, system loss, and other variables).

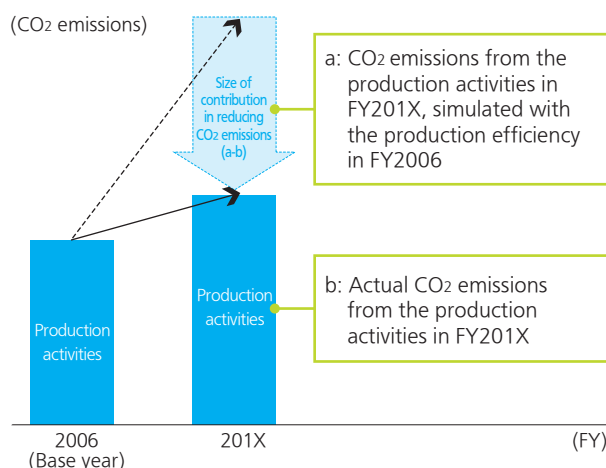
<sup>5</sup> For photovoltaic power generation: 0.3145 kg CO<sub>2</sub>/kWh (considering energy used in the production process; by the Japan Photovoltaic Energy Association).

<sup>6</sup> For photovoltaic power generation: 20 years.

The smaller the amount of CO<sub>2</sub> emissions per unit of production (tons/100 million yen),<sup>7</sup> the more efficient productivity is, and the size of contribution in reducing CO<sub>2</sub> emissions in production activities will increase.

<sup>7</sup> Productivity indicator (Energy consumed in manufacturing products whose total monetary value is 100 million yen, converted to the amount of CO<sub>2</sub> emissions).

### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Production Activities



a. Energy consumption per unit of production in FY2006<sup>8</sup> x CO<sub>2</sub> emissions factor<sup>10</sup> x Production value of FY201X<sup>11</sup>

b. Energy consumption per unit of production in FY201X<sup>8</sup> x CO<sub>2</sub> emissions factor<sup>10</sup> x Production value of FY201X<sup>11</sup>

<sup>8</sup> Factories whose nominal energy consumption per unit of production had increased from the fiscal 2006 level due to sharp declines in product prices recorded negative figures in the level of contribution in reducing CO<sub>2</sub> emissions. For the level of contribution made by factories consolidated or sold in fiscal 2007 onwards, CO<sub>2</sub> emissions in fiscal 2006 were used for the calculation. For factories purchased, CO<sub>2</sub> emissions in fiscal 2006 were not deemed as a negative contribution.

<sup>9</sup> Per-basic CO<sub>2</sub> emissions for fiscal 2006 were used for factories purchased; while for factories newly constructed, the per-basic emissions for the fiscal year in which they were constructed were used.

<sup>10</sup> The factors related to fuels are based on the Guideline for Calculation of Greenhouse Gas Emissions (version 2.2) published by the Japanese Ministry of the Environment. The CO<sub>2</sub> emission factor for electricity purchased in Japan (kgCO<sub>2</sub>/kWh) is fixed at 0.410. The factors above are also used for electricity purchased from power producers and suppliers (PPS). The GHG Protocol's factors for each country are used for electricity purchased outside Japan.

<sup>11</sup> Nominal production value.

## Energy Saving and Global Warming Prevention at Factories

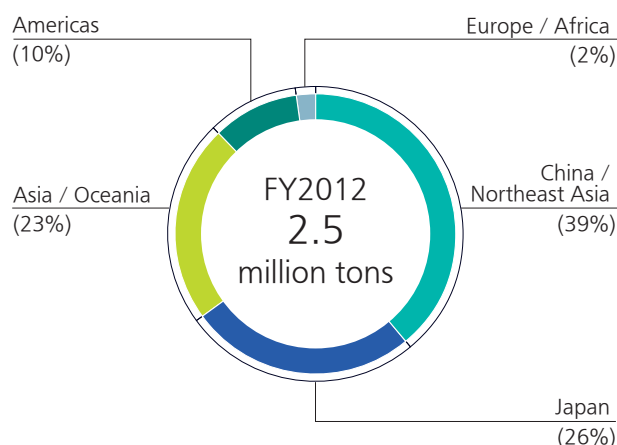
### Maximizing the Amount of Contribution in Reducing CO<sub>2</sub> Emissions

In our last round of CO<sub>2</sub> targets, we achieved 0.84 million tons in CO<sub>2</sub> emissions reductions in our production activities by fiscal 2010, far exceeding our target of 0.3 million tons from fiscal 2007. By pursuing continuous improvement of our energy management capabilities and lowering our CO<sub>2</sub> emissions per basic unit, we aimed to maximize our contribution in reducing CO<sub>2</sub> emissions in production activities from fiscal 2011.

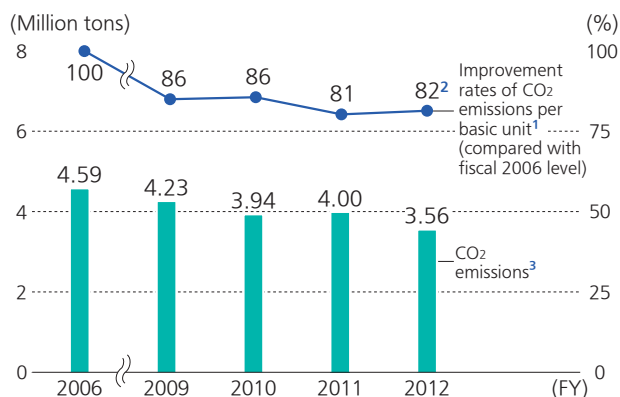
As a result, we increased the size of contribution in reducing CO<sub>2</sub> emissions through production activities in fiscal 2012 to 2.50 million tons, exceeding our target of 2 million tons.

We will continue to make progress toward achieving our target for the size of contribution in reducing CO<sub>2</sub> emissions through production activities, which is 2.55 million tons in fiscal 2013.

#### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Production Activities (by Region)



### CO<sub>2</sub> Emissions and the Improvement Rates of CO<sub>2</sub> Emissions Per Basic Unit through Production Activities



<sup>1</sup> Calculated using the weighted average of the improvement rate for CO<sub>2</sub> emissions per basic unit of nominal production of each factory. The amount of CO<sub>2</sub> emitted from each factory is used for weighting cases where no improvement is observed.

<sup>2</sup> Due to the decline in production volume, the improvement rate per basic unit increased in fiscal 2012.

<sup>3</sup> Factors related to fuels are based on the Guidelines for the Calculation of Greenhouse Gas Emissions (version 2.2) published by the Ministry of the Environment of Japan. The CO<sub>2</sub> emissions factor for electricity purchased in Japan (kg-CO<sub>2</sub>/kWh) is fixed at 0.410. When the factors for each fiscal year used are 0.425 (fiscal 2006), 0.373 (fiscal 2009), 0.351 (fiscal 2010), and 0.350 (fiscal 2011 and 2012), total CO<sub>2</sub> emissions are 4,630,000 tons (fiscal 2006), 4,080,000 tons (fiscal 2009), 3,700,000 tons (fiscal 2010), 3,740,000 tons (fiscal 2011), and 3,340,000 tons (fiscal 2012), respectively. The factors above are also used for electricity purchased from power producers and suppliers (PPSs). The GHG Protocol factors for each country are used for electricity that is purchased outside of Japan.

### Promoting the CO<sub>2</sub> *ITAKONA*<sup>4</sup> Initiative

To ensure the reduction of CO<sub>2</sub> emissions at our factories, it is important to track the energy consumption of each factory and the effects of specific emissions reduction measures to visualize reduction effects. To date, we have introduced more than 40,000 measurement systems and Factory Energy Management Systems (FEMS) at all of our global manufacturing sites, and we have continued to promote our CO<sub>2</sub> *METAGEJI*<sup>5</sup> initiative.

From fiscal 2011, we promoted our CO<sub>2</sub> *ITAKONA* initiative to further identify energy waste and develop ideas for reduction through the best use of *METAGEJI*. Through our CO<sub>2</sub> *ITAKONA* initiative, we will be able to use the data and results visualized through *METAGEJI* to troubleshoot and classify our consumed energy according to its factor and implement measurable reduction activities more efficiently.

<sup>4</sup> *ITAKONA* refers to a process by which we review stages prior to production to study raw materials to ensure waste is minimized and quality is maintained. We apply a similar review process for our CO<sub>2</sub> emissions reduction efforts and call these our CO<sub>2</sub> *ITAKONA* initiatives.

<sup>5</sup> *METAGEJI* is a term unique to Panasonic and refers to visualizing energy consumption and implementing measurable reduction initiatives by introducing measurement instruments, such as meters and gauges.



In fiscal 2012, we utilized model factories to conduct practical activities and research to document and establish new instructions and methods on energy savings. As a result, we confirmed possible energy savings of 20 to 30 percent higher than expectations in these model lines.

For example, in the cleaning process of our Eco Solutions Company's air conditioning manufacturing factories, by visualizing energy flow and analyzing energy consumption per product by time, we have discovered energy loss due to operating empty or unfilled lines, and have achieved a 23 percent increase in energy saving by remodeling these facilities.

In the future, we will extend these processes to our global network in an effort to realize substantial energy savings.

### Promoting Top Runner Factories for Saving and Creating Energy

To further promote energy conservation and reduce CO<sub>2</sub> emissions across our company, we have selected at least one factory from each of our domain companies that is facing the most urgency with respect to energy conservation as a Top Runner Factory since fiscal 2011. Top Runner Factories make investments in energy conservation and create three-year implementation plans. These plans provide guidance in six areas:

- (1) Introducing top-level production process innovations,
- (2) Maintaining and managing highly efficient manufacturing equipment,
- (3) Pursuing the top-level rate of CO<sub>2</sub> emissions reduction per basic unit,
- (4) Implementing systems for energy consumption visualization,
- (5) Promoting factory-wide CO<sub>2</sub> emissions reduction efforts in production processes,
- (6) Introducing our solar energy system.

Selected Top Runner Factories are required to have outstanding and specialized features in energy conservation. Through this initiative, Top Runner Factories achieve the highest level of energy saving in the domain company, as well as develop No. 1 energy-saving technologies for their specialized area. Such cases of advanced factories are rolled out across related factories worldwide by Top Runner Factories.

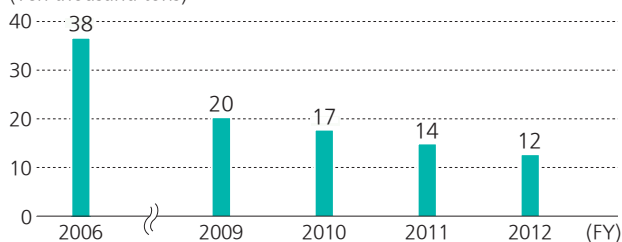
### Reducing the Emissions of GHGs Other than CO<sub>2</sub> from Energy Use

In addition to CO<sub>2</sub>, Panasonic emits PFCs, SF<sub>6</sub>, and other GHGs, which are mainly used as etching and cleaning gases at its semiconductor factories. In order to reduce the emissions of these gases, our semiconductor factories have been implementing measures, including substituting such gases with those having lower environmental impact and installing GHG removal devices to recover the generated gases and render them harmless.

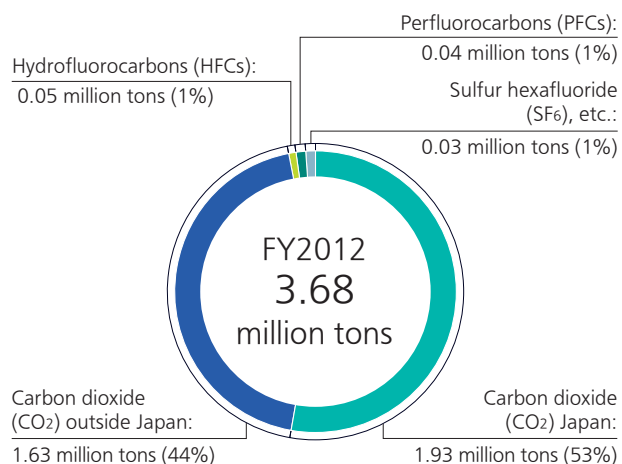
The World Semiconductor Council established target of reducing GHG emissions by at least 10% from the 1995 level by 2010, and the efforts continue until the end of 2012. Our semiconductor department has achieved a 60 percent reduction from the 1995 level in fiscal 2012.

#### Emissions of GHGs Other than CO<sub>2</sub> through Production Activities (CO<sub>2</sub>-equivalent)

(Ten thousand tons)



#### Breakdown of Total GHG Emissions from Production Activities (CO<sub>2</sub>-equivalent)

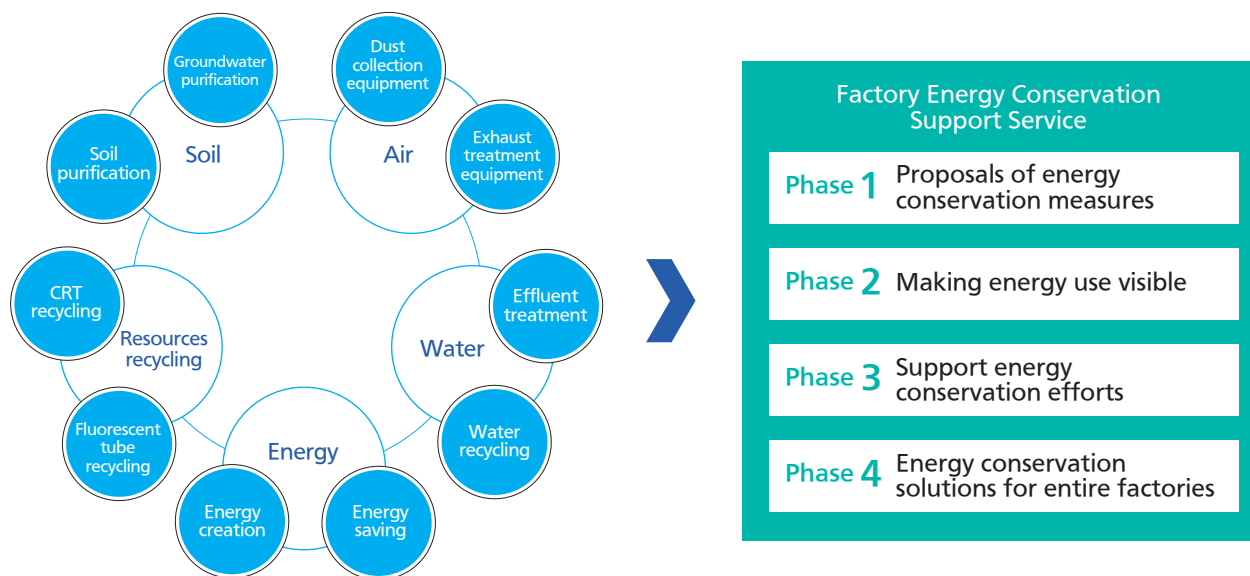


## Environment Solutions Business

We provide our technologies, knowledge, and experience related to the environment as a packaged service offering to enterprises outside our company looking to improve the environmental performance of their factories. Our Total Environmental Package Solutions for Entire Factories offer environmental solutions in energy conservation, effluent treatment and water recycling, exhaust treatment, resource recycling, soil and groundwater purification, and energy creation, such as solar power. These solutions were all instrumental in our own efforts to achieve an 840,000-ton CO<sub>2</sub> emissions reduction in the previous three-year period. In addition, in April 2010, we started the Factory Energy Conservation Support Service to provide further guidance in energy consumption visualization, energy conservation diagnoses, practical measures for energy saving, and overall implementation support for factories through technology, equipment, human resources, and finance.

As a part of our service menu, in October 2011, we launched SE-Navi, a system for visualizing energy consumption at factories that condenses our energy management expertise and know-how. This system identifies the level of energy consumption efficiency utilizing such basic energies as electricity and gas, as well as flow, pressure, temperature, humidity, and other physical data together with details of amounts manufactured to help factories swiftly plan energy-saving measures, make trial calculations, and improve verification accuracy using that data. This innovative system also provides graphic displays of long-term efficiency fluctuations for equipment, including compressors, boilers, and freezers, to better identify equipment deterioration and necessary maintenance—all of which serve to reduce wasted energy consumption. Looking ahead, we will deliver additional benefits through our energy-saving navigation function. Utilizing proprietary energy-saving determination methods to analyze the basic unit calculated from qualities manufactured and energy consumed, we will uncover issues related to production lines and equipment on a timelier basis.

Image of Our Total Environmental Package Solutions for Entire Factories



## Energy Saving in Offices

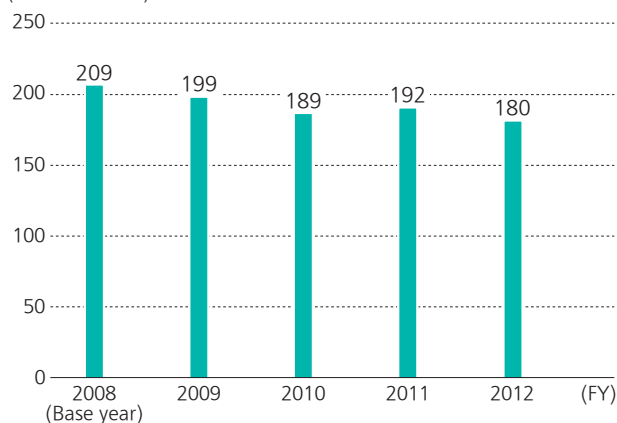
### CO<sub>2</sub> Emission Reduction at Non-manufacturing Sites

In our efforts to reduce CO<sub>2</sub> emissions from our production activities, we have also focused on measures aimed at curtailing emissions at non-manufacturing sites, including offices and research centers, since fiscal 2009. We have set a company-wide target of reducing CO<sub>2</sub> emissions by an average of 2 percent or more each year, over a baseline year of fiscal 2008, at 81 self-owned office buildings in Japan. To meet this goal, each site has implemented a three-year energy conservation plan while also taking steps to conduct energy conservation diagnoses to visualize the nature and amount of waste. As a result, we reached our goal in fiscal 2012, reducing our CO<sub>2</sub> emissions by 180,000 tons, marking an annual average reduction of about 3.4 percent compared with the fiscal 2008 baseline level.

From fiscal 2011, we started to check the progress of 124 sites, including 45 sites owned by other companies, on a monthly basis. We also introduced our Green Office Assessment to improve our environmental management practices at non-manufacturing sites. This assessment is composed of a 50-point scale section with 40 items and another 50-point scale section focusing strictly on CO<sub>2</sub> emissions reduction, and is used as an annual evaluation process. In fiscal 2012, we achieved a "Level 3.8" average (total score: 76/100) across the entire Panasonic Group. We continue to aim toward achieving a performance average of "Level 4" or higher (total score: 80 or more/100) at our non-manufacturing sites in fiscal 2013.

### CO<sub>2</sub> Emissions from Non-manufacturing Sites (Self-owned Office Buildings in Japan)

(Thousand tons)



Note: Scope of the data: Non-manufacturing sites with 100 or more employees;  
CO<sub>2</sub> emission factor for electricity purchased: 0.410 kg-CO<sub>2</sub>/kWh

### Green IT Initiatives

We have been promoting Green IT initiatives to reduce CO<sub>2</sub> emissions through the use of IT technologies. Specifically, initiatives are classified into Green of IT (making IT devices more energy-saving and improving their operations), Green by IT (making the entire society more energy-saving by the use of IT), and Green Data Center (making the data center more energy-saving).

Activity	Details	CO <sub>2</sub> emissions reduction in fiscal 2012
Green of IT	Stricter management of PC power sources Reducing the standby power used by IT devices	785 tons
Green by IT	Promoting working at home, Internet-based meetings, and HD image communication systems	3,393 tons
Green Data Center	Consolidating and integrating servers	1,898 tons

## Green Logistics

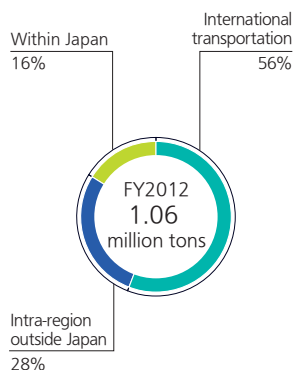
### Reducing CO<sub>2</sub> Emissions in Logistics

We have set a target of reducing our CO<sub>2</sub> emissions by 46 percent by fiscal 2019 (from fiscal 2006 level) and a midterm goal of reducing our CO<sub>2</sub> emissions per basic unit<sup>1</sup> by at least 1 percent year-on-year for both international and domestic transportation every year until fiscal 2012.

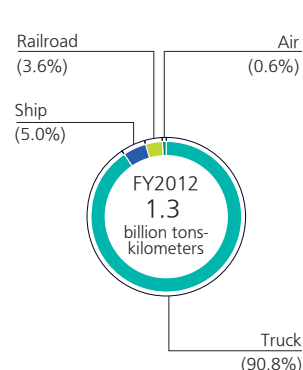
In fiscal 2012, our global CO<sub>2</sub> emissions from logistics activities came to 1.06 million tons, of which international transportation accounted for 56 percent and domestic transportation accounted for 16 percent. We achieved the reduction rate target in CO<sub>2</sub> emissions per basic unit from international and domestic transportation of 1 percent (compared to the fiscal 2011 level) due to modal shift activities.

In fiscal 2013, we will continue to accelerate our green logistics endeavors by nurturing our workforce through logistics skills training and establishing green logistic promotion structures and systems globally.



CO<sub>2</sub> Emissions from Logistics

## Transportation Amount by Transportation Method (Japan)



Note: SANYO Electric's data before the end of 2011 is not included in the intra-region outside of Japan and international transportation. The area and products surveyed in international transportation have been expanded since fiscal 2012.

1 CO<sub>2</sub> emissions per transportation weight

## Building an Eco-conscious Logistics Infrastructure

We have overhauled our sales and logistics structure in Japan, consolidating logistics in facilities located close to major ports that service the eastern and western regions of Japan. Our West Japan Global Logistics Center in Amagasaki partnered with chartering brokers to create a round-trip program for shipping cargo, reducing CO<sub>2</sub> emissions while curtailing costs. We cut our CO<sub>2</sub> emissions by 14 percent (76 tons) year-on-year in fiscal 2012 owing to the 10% increased efficiency of round-trip shipping. We have also developed a green transportation network, a delivery system that combines six large Compressed Natural Gas-powered vehicles, a first for Japan, and a shift to rail transportation for long distance shipping and highly efficient transportation through an automated delivery system. In addition, we are establishing environmentally conscious logistics facilities, installing approximately 12 thousand LED lights and a 50 kW photovoltaic power generation system at our Amagasaki logistics warehouse and offices. As a result of these activities in Amagasaki, we received the inaugural award from Japan's Minister of the Environment for exemplary efforts in environmental measures in January 2012.

## Modal Shift Initiatives

Our domestic railroad freight transportation in fiscal 2012 totaled 17,813 five-ton containers. In line with the transportation modal shift undertaken during fiscal 2012, we reduced CO<sub>2</sub> emissions by 9,561 tons. In addition, we continued to foster joint transportation with partner companies in fiscal 2012, establishing new modal shift promotion consortiums while expanding our modal shift commitment by an equivalent of 2,077 five-ton containers.

Outside of Japan, we are also promoting less CO<sub>2</sub>-intensive marine transportation to cross rivers over using truck transport. For example, in Brazil, for long-range transport of goods from Manaus in the inland to the southern city of São Paulo, we grew our year-on-year use of marine transportation over the same route by 20 percent in fiscal 2012, resulting in a 7 percent reduction in CO<sub>2</sub> emissions.

## Joint Transportation with Other Industries

We are working to increase transportation efficiency in collaboration with other cargo-owning companies and transportation partners. Working with the Asahi Shimbun Company and Asahi Industry Co., Ltd., we began in fiscal 2011 using empty space on newspaper delivery vehicles to transport our cargo, reducing trips by empty vehicles and boosting transport efficiency. Creating a return transportation model between two very different industries, along with our use of low-emission and alternative-fuel vehicles, has helped us to reduce CO<sub>2</sub> emissions by 55 percent. Japan's Economy, Trade, and Industry Minister awarded us the 10th Green Transportation Excellent Company Award in December 2011 for these efforts.

Since December 2011, we have also teamed up with Oji Paper Co., Ltd. to commence a round-trip transport program; provisional calculations indicate that this initiative will reduce CO<sub>2</sub> emissions for both companies by 40 percent, or 175 tons, annually.

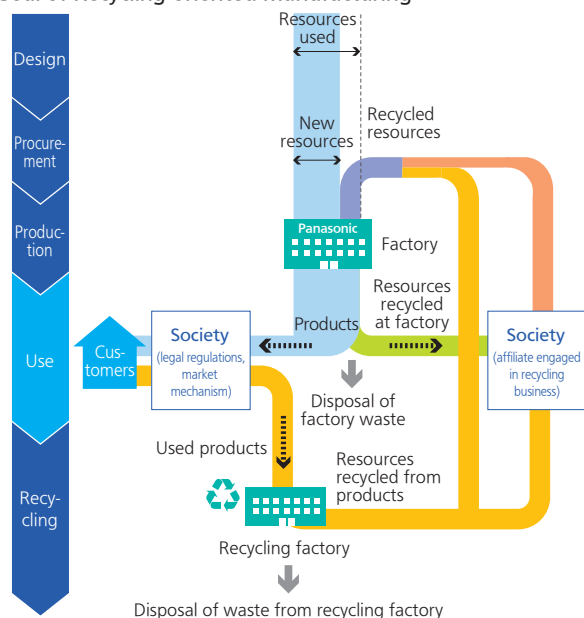
## Resource Recycling

### RECYCLING-ORIENTED MANUFACTURING

With swift economic growth advancing worldwide and bringing heightened attention to concerns over resources, the sourcing of new resources and materials will not only impact our global environment, but minerals resource depletion and materials pricing run-up will also become big issues that impact company management.

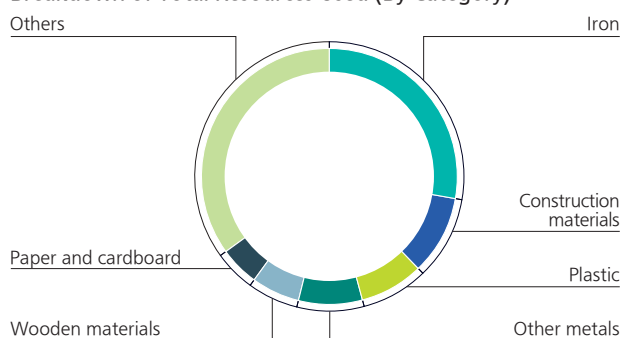
To address these concerns, we selected resources recycling as an underlying theme along with CO<sub>2</sub> emissions reduction, promoting our Recycling-oriented Manufacturing concept. Under this concept, we minimize the amount of total resources used and maximize the amount of recycled materials, as well as aim toward Zero Waste Emissions by reducing our final disposal of waste from production activities. We continuously look to make our products lighter and smaller to reduce our total resources used, and we employ new technologies that maximize the collection of recycled resources and expand the use of recycled resources. We also look to eliminate the waste generated at our factories by promoting the use of recycled resources, and we aim to reduce the waste we send to landfills to as close as possible to zero. We are making every effort not only to reuse resources and eliminate waste in production processes, but also to establish a cycle that enables our customers to use products made from the resources collected from used products. Guided by these efforts, we will endeavor to contribute to a sustainable society while achieving continuous business growth.

#### Goal of Recycling-oriented Manufacturing



We use many kinds of resources due to our wide range of products and businesses, from semiconductor parts to houses. In Recycling-oriented Manufacturing, it is important to promote the reduction of total resources used, and at the same time develop a recycling process according to the specific characteristics of each resource for expansion of our usage of recycled resources.

#### Breakdown of Total Resources Used (By Category)

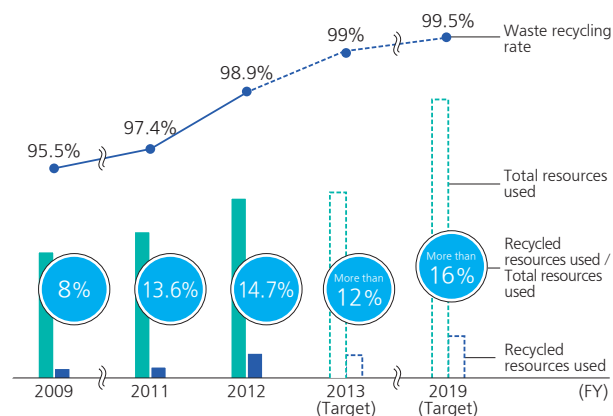


We review the volume of each type of resource used across our Panasonic Group and continuously clarify recycled resource utilization issues. For example, in the case of plastic, by identifying the characteristics of each product that requires this resource, securing a stable supply, researching how to recycle it, and developing new recycling technologies for it, we used approximately 8,000 tons of recycled plastic for our products in fiscal 2012. By proactively promoting the use of recycled resources, we launched the Resources Recycling-oriented Products series that incorporates insulation materials and plastics made from recycled resources in February 2012. (See page 26 for a full description of our Resources Recycling-oriented Products series.)

Previously, we have set our goals in Japan and overseas separately, in accordance with local recycling infrastructure. As global recognition of the importance of zero-emission activities has grown in recent years, we have taken steps to identify a standard for waste and recycling across our entire Group since fiscal 2011.

Using fiscal 2009 as our baseline, we set the percentage of recycled resources used out of total resources used to more than 12 percent in fiscal 2013. In fiscal 2012, we achieved a 14.7 percent result. In addition, against fiscal 2012 and fiscal 2013 targets of 98.5 percent and 99 percent or more, respectively, we achieved a factory waste recycling rate of 98.9 percent in fiscal 2012. As we look toward our fiscal 2019 goal, we will continue to promote our Recycling-oriented Manufacturing.

### Medium to Long-term Targets and Actual Results of Recycling-oriented Manufacturing



## Reduction in Resources Used

### Reducing Product Mass

To reduce the use of resources for production, we continuously look to reduce the weight of our products. In addition to our efforts for downsizing our products by using thinner and lighter materials and parts and less components, we will strengthen our approach to product design for easy recycling from the recycling resources point of view. One example is below:

- **HD Integrated Camera**

Our integrated high-definition (HD) camera can be used for video conferencing and in a variety of venues.

This rotatable HD integrated camera (Model AW-HE120) can shoot full HD images and videos using a 2.2-megapixel 3MOS system and high-magnification 20x zoom lens. We have developed this high-performance, high-magnification lens module while reducing the size and mass of the camera head to improve its “pan/tilt” functionality. Through the introduction of our new, high-performance DSP-IC, which processes video signals digitally and has had improvements made in the efficiency of its circuits, we have developed a compact design that is approximately 60 percent smaller in size and mass<sup>1</sup> compared with the conventional model (Model AW-HE100). This product also achieves considerable energy savings. Compared with the conventional model, Panasonic’s HD integrated camera uses 48 percent less energy—just 21W. Our focus on ease of use and sophisticated design earned Panasonic the top iF Product Design 2012 Award conferred by the iF International Forum Design in Germany.

<sup>1</sup> 180 mm width/228 mm height/220 mm depth (excludes the direct ceiling bracket cover)

## Recovery of Resources

### Recycling Technology Development Activities

It is important to recover resources as much as possible to expand usage of recycled resources. In addition to operating two recycling factories, Panasonic is actively engaged in the development of recycling technologies.

Rather than just stop at the recovery of resources, we are working to address wide-ranging issues, including resource recycling and the acquisition of scarce metals.

- **Development of High-Precision Resin Sorting System Mass Production Equipment**

Historically, we have sorted by hand the resources recovered from used products that are reused as plastic materials in our products. Plastic materials that could not be sorted by hand were not reused in products but used as fuels after shredding. This is because plastics containing bromine-based flame-retardant materials, which are subject to environmental regulations, could not be removed after shredding.

In fiscal 2011, Panasonic developed a high-precision resin sorting system that automatically sorts and recovers plastic materials from residues. This system was introduced into the recycling factory of Panasonic Eco Technology Center Co., Ltd. (PETEC) on a trial basis.

The system uses near-infrared rays to instantly identify specific plastic materials contained in the residues carried on a conveyor, and the plastic materials that are identified are shot down for recovery with compressed air. This system enables the sorting and recovery of plastic materials by type at purity of over 99 percent, and also enables the removal of plastic materials that contain bromine. This development has led to an increase in the amount of resources recovered.

In fiscal 2012, we took steps to install mass production equipment. As with the trial model, the mass production equipment is compact in size and does not require the use of water. Compared with the trial model, however, the new equipment offers an approximate 20 percent improvement in the recovery rate, an increase in capacity of 1.5 times, and the potential to process 1,000 tons annually.



## Development of the Neodymium Magnet Recovery System

Neodymium (Nd) magnets are used in the motors of air conditioner compressors and certain drum-type washing machines. These magnets often contain dysprosium (Dy); both of these metals are critical materials for recovery due to their scarcity and high value. Given the instability in price and supply, securing rare earth metals is extremely important.

In fiscal 2012, we completed the development of a set of equipment that extracts Nd magnets from used products, and have introduced it in our operations.

PETEC, Panasonic's recycling factory, has commenced the development of compact systems, primarily for air conditioning compressor motors, that do not emit heat or gases and therefore have a low environmental impact.<sup>1</sup> By putting the rotor part of the motor into the system, the plate-shaped Nd magnet can be collected after removing the magnetic force. While Nd magnets have been used in air conditioners manufactured in recent years, these important materials could not be recovered until now. With the introduction of this system, in fiscal 2013, we expect to recover 1.2 tons of Nd magnets.

Panasonic Eco Technology Kanto Co., Ltd. (PETECK)—a joint-venture company formed with Mitsubishi Materials Corporation—has researched and developed systems that are capable of processing not only air conditioners, but also washing machine motors that are able to recover Nd magnets, as well as non-ferrous metals.<sup>2</sup>

Up until now, large volumes of such metals as iron, copper, aluminum have been recovered in the recycling process, but our development of recycling technologies has made it possible to retrieve materials that are more difficult to recover and reuse, such as Nd magnets.

<sup>1</sup> Supported by a business subsidy program of Japan's Ministry of Economy, Trade, and Industry.

<sup>2</sup> Supported by a business subsidy program of the New Energy and Industrial Technology Development Organization.

## Used Product Recycling

Aiming toward the effective use of natural resources and the prevention of environmental pollution, a growing number of recycling laws have been enacted in various countries throughout the world. Examples include the Home Appliances Recycling Law and the Law for the Promotion of Effective Utilization of Resources in Japan, the WEEE<sup>3</sup> Directive in the European Union, and recycling laws in many states in the United States. In China as well, a similar law has been in effect since

January 2011. In addition to complying with recycling laws in each country, we attempt to go further: we endeavor to play an active role in creating the most efficient recycling system in each country in view of its local recycling infrastructure.

<sup>3</sup> WEEE: Waste Electrical and Electric Equipment

### FY2012 Results

Japan	Recycled approximately 164,000 tons of four categories of home appliances
Europe	Collected approximately 58,000 tons of used electronic products
United States	Collected approximately 14,000 tons of used electronic products

### Japan

In response to the Home Appliances Recycling Law of 2001, which covers four specified kinds of home appliances, we developed a geographically dispersed recycling network through the effective use of existing recycling facilities nationwide. A recycling management company operates all the recycling-related services, including supervising 378 designated collection sites and 36 recycling facilities, on behalf of the "Group A" manufacturers (22 companies including Panasonic). Our recycling factories, PETEC and PETECK, conduct unique research to improve our recycling processes for more efficient treatment of the four specified home appliances<sup>1</sup> and for the recovery and supply of more resources. In fiscal 2012, we recycled approximately 164 thousand tons of the four specified home appliances.

<sup>1</sup> Air conditioners, TVs, refrigerators/freezers, and washing machines/clothes dryers.

### Europe

Prior to the enforcement of the WEEE Directive in Europe in August 2005, Panasonic established a recycling management company, ENE EcologyNet Europe GmbH, in Germany in April 2005. In cooperation with established recycling companies, we have built up a high-quality recycling system based in Germany. In 2011, we collected approximately 58 thousand tons<sup>2</sup> of used products covered by the WEEE Directive.

<sup>2</sup> Calculated by multiplying the weight of collected products through each collection system by Panasonic's share on a product weight basis in the market that is relevant with the collection system.

### United States

Following the start-up of the state recycling law in Minnesota in July 2007, we established Electronic Manufacturers Recycling Management Company, LLC (MRM), jointly with Toshiba Corporation and Sharp Corporation in September of the same year, and began recycling TVs, PCs, and other electronics. With collaborative ties to five recycling companies, each

with a nationwide network, we are running a recycling program that covers the entire United States. At more than 1,300 collection bases, Panasonic collected approximately 14 thousand tons<sup>3</sup> of used electronic products in 2011.

<sup>3</sup> Total amount collected based on both state mandates and through voluntary efforts, etc.

## China

The Regulation for the Management of Recycling and Disposal of Waste Electrical and Electronic Products (China WEEE) was enforced in January 2011. Under this regulation, we established a joint recycling company in Hangzhou, named Panasonic DADI DOWA Summit Recycling Hangzhou Co., Ltd., with Hangzhou DADI Environmental Protection Engineering Co., Ltd., DOWA Holdings Co., Ltd., and Sumitomo Corporation in November 2011. Based on “advanced and practical technology” and “contemporary control system,” two methods that have been developing within the recycling industry in Japan for over 10 years, our new company will engage in the collection, disassembly, and sale of recycled materials extracted from used appliances in accordance with WEEE regulations with the aim of becoming an advanced model for home appliance recycling in China. Through these efforts, the company will contribute to environmental conservation and the effective use of resources in the country.

## Asia Pacific

In the Asia Pacific region, an increasing number of countries are moving toward legislation governing recycling.

In conjunction with the enactment of a recycling law in India in May 2012, we have built a network of recovery bases using brand shops and accredited service stores.

Following the introduction of relevant laws in Australia in July 2012, we are engaging in recycling activities through a recovering and treatment recycling scheme that covers TVs, PCs, and other appliances.

In Vietnam, we are involved in discussions with government and industry authorities in an effort to introduce optimal laws and regulations.

## Use of Recycled Resources

### Technology that Makes Full Use of Resources

We have been developing technologies to extract the maximum amount of resources from used products and use these resources as materials in the manufacture of new products. For example, we developed a technology that processes glass extracted from cathode-ray tube (CRT) TVs into vacuum insulation materials that are widely used in a variety of products, including refrigerators and hot water pots. We also have molding and material recycling technologies to recover degraded plastics from used products and use them in new products. We will continue to accelerate the development of such recycling technologies.

- **Utilizing Glass from Used CRT TVs**

Glass makes up around 60 percent of the total weight of CRT TVs. Until recently, the CRTs of TVs were reused to create new CRT TVs. However, with the rapid shift to flat-panel TVs and the end of analog broadcasting, demand for CRT TVs has fallen dramatically, reducing the recovery value of CRTs.

We launched a proprietary reprocessing technology that converts glass from used CRT TVs into glass wool fibers used to make the vacuum insulation materials for refrigerators. We use a laser to remove the CRT from recovered TVs; after crushing and dry scrubbing, the glass is transformed into waste. This waste is then melted at temperatures exceeding 1,000°C and subjected to micro-fabrication of approximately 4 μm; at the end of this process, reusable glass wool is created. This is the first instance of a home appliance manufacturer in Japan recycling CRTs for use in the manufacture of other home electronic products.

## Zero Waste Emissions from Factories

### Pursuing Zero Waste Emissions by Minimizing Final Disposal

Waste generated at our factories is classified into: (1) recyclable waste (including those that can be sold and those which can be transferred free of charge or by paying a fee), (2) waste that can be reduced by incineration or dehydration, and (3) final disposal (waste with no option other than being sent to landfills). We reduce the emission of waste by boosting yield in our production process and increasing the recycle rate of our waste materials. Accordingly, we strive globally toward achieving our Zero Waste Emissions<sup>1</sup> goal by reducing the amount of final disposal to nearly zero by fiscal 2013.

Specifically, we had set the factory waste recycling rate goals of 98.5 percent for fiscal 2012, and buoyed by efforts to strengthen measures in China and Europe, we reported a factory waste recycling rate of 98.9 percent in fiscal 2012. With a goal of achieving a recycling rate of over 99 percent in fiscal 2013, we will continue to improve our rate of factory waste recycling.

<sup>1</sup> Panasonic's definition: Recycling rate of 99 percent or higher. Recycling rate = Amount of resources recycled / (amount of resources recycled + amount of final disposal).

### Measures to Reduce the Amount of Final Disposal

We are working diligently to contain the level of waste materials that are particularly difficult to recycle, including thermoset resin. We are also strictly adhering to waste sorting practices in production processes to further increase the reuse of resources.

Waste recycling rates in our overseas factories lag behind those in Japan, so we aim to improve average level of recycling activities by sharing information within and between regions. Starting from Europe and China and other Asian countries, we also expanded our activities in the Americas in fiscal 2012. We are committed to increasing information sharing about waste recycling between local factories and business domain companies. We also promote the sharing of excellent examples and know-how among our factories across regions by utilizing BA Charts<sup>2</sup> prepared by each region, adopting the long-standing approach toward CO<sub>2</sub> reduction activities. Our specialists have called on 44 of the Group's factories where waste disposal amounts are high and recycling rates are low. These specialists not only review the state of waste management, but also propose solutions that are tailored to the local recycling and waste management infrastructure.

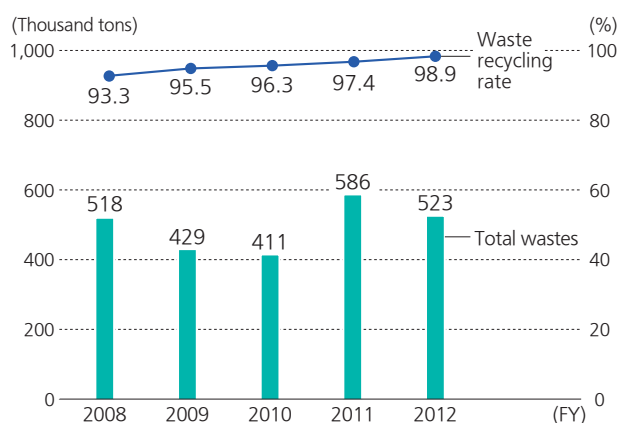
Panasonic Appliance Refrigeration Devices Singapore Pte., Ltd. (PAPRDSG) has made great progress in reusing waste sand generated by compressor molds. In the past, waste molding sand had largely been disposed of in

accordance with local laws. Using recycling techniques developed in Japan, PAPRDSG worked to nurture companies capable of recycling waste molding sand. Through this collaboration, waste molding sand is now used in the construction of underground railways and as roadway blocks. These recycling endeavors have led PAPRDSG to reduce its amount of final waste sand disposal by 83 percent compared to fiscal 2011.

To continue these successes, we must develop human resources with expertise in waste management. We have been providing regular training on waste management in each region, and in fiscal 2012, training sessions held in Asia and Europe were attended by approximately 470 officers responsible for waste management.

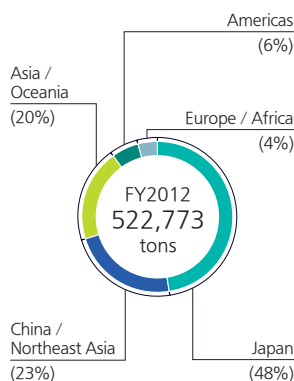
<sup>2</sup> BA Chart: Chart that provides a comparison between before and after the implementation of waste reduction and recycling measures.

### Amount and Recycling Rate of Total Wastes Including Revenue-generating Waste

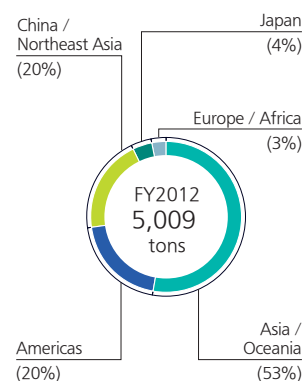


Note: SANYO Electric and Panasonic Liquid Crystal Display Co., Ltd. are not included in fiscal 2008 through 2010

### Breakdown of Total Wastes Including Revenue-generating Waste (by Region)



### Breakdown of Final Disposal (by Region)





## Water Resource Conservation

It is said that available fresh water is only about 0.01 percent of the Earth's total water resources. To save this resource, we provide products that help conserve water. We also use recycled water over and over in our production activities.

### Water Resource Conservation through Products

By thoroughly analyzing the use of water through our products, we have developed functionalities that allow a considerable amount of water conservation by utilizing water at a maximum level through improvement of water flow and use control. In fiscal 2012, we enhanced one of the criteria, water resource conservation, in our Green Product Accreditation Criteria (see page 25), and sped up the development of industry-leading products that contribute to water saving.

- **Rhythm eShower**

By varying the high-speed of water flow to a pace of 120 times per minute, the Rhythm eShower balances the needs for comfort and water conservation, maintaining the pleasure of hot water as it cascades down the body while conserving the amount of water used. Rhythm eShower can save water up to approximately 10 percent<sup>1</sup> compared with conventional showers.

<sup>1</sup> Comparisons based on the Rhythm eShower when ON (setting: strong) and OFF for a shower lasting five minutes

- **Drum Washer**

Our global model, NA-148VG3, is equipped with an innovative 3D sensor that detects the movement of the drum and an inverter that optimizes the rotation speed. In addition, the load sensor and foam sensor detects the load of the laundry for optimal washing. With these functions, the washer has achieved the top-level water saving performance<sup>2</sup> in the Singaporean market, in addition to being highly energy-efficient.

<sup>2</sup> Uses 6.13 liters of water to wash one kilogram of laundry. As of March 2012 (surveyed by Panasonic).

### Water Resource Conservation through Production Activities

By collecting, treating, and reusing waste water from our manufacturing processes and air conditioning systems, we reduce the amount of water use and wastewater effluent. This reduces the impact of the intake and effluent of water in production activities on water resources. With many regions around the world

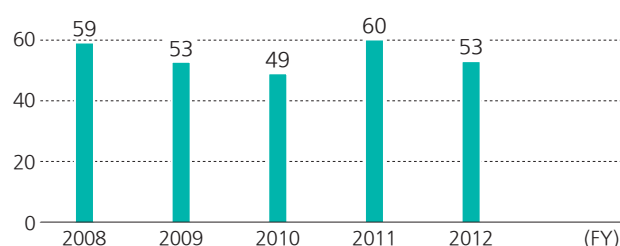
threatened by water shortages, we carefully select which regions to focus on to address our use of water in our manufacturing activities. In fiscal 2012, despite the decrease in production, the ratio of water used at factories per basic unit of production improved by 0.2 percent compared with fiscal 2011.

We have achieved cost reductions and have improved the recycling rate of process water at our Panasonic Energy Company's Suminoe factory by unifying the water supply, distributing conventional pure equipment and industrial water treatment equipment to each individual facility within the factory, and switching to the latest in centralized systems that manage onsite drainage structures. In addition, we have shifted the management of our facilities, including the management of water purification equipment, to internal water experts, which has enabled us to achieve a 100 percent recycling rate of process water.

We will continue to reduce our water use despite increasing production volumes, foster increased water recycling, and reduce water usage at more of our factories in Asia and across the world. We will also designate some of our facilities as model factories for water saving to share the practice across the Group.

#### Amount of Water Consumption

(Million m<sup>3</sup>)



Note: SANYO Electric and Panasonic Liquid Crystal Display Co., Ltd. are not included in fiscal 2008 through 2010

#### Breakdown of Water Consumption (by Region)

(10,000 m<sup>3</sup>)

Region	Municipal water / industrial water	Rivers / lakes	Ground-water	Consumed	Discharged
Japan	1,716	20	2,129	3,865	3,314
Americas	61	0	12	73	51
Europe / Africa	16	0	12	27	30
Asia / Oceania	476	4	75	555	349
China / Northeast Asia	783	0	27	810	462
Total	3,052	24	2,254	5,330	4,207

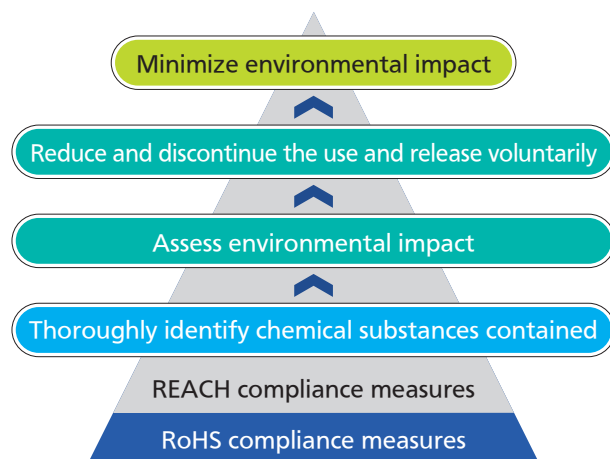
## Reducing the Impact of Chemical Substances

### Initiatives to Minimize Environmental Impact

As represented by the enforcement of the REACH regulation<sup>1</sup> in the European Union, the world is moving toward the goals agreed at the World Summit on Sustainable Development (WSSD) held in 2002, which is to produce and use all chemical substances in a manner that minimizes their impact on human health and the environment by 2020. In support of the precautionary approach proposed in the Rio Declaration made at the Earth Summit in 1992, we have been manufacturing products in line with our basic policy of minimizing the use of chemical substances that might adversely affect human health and the environment throughout their life cycles. As specific initiatives, we aim to minimize the environmental impact of our products by (1) identifying hazardous substances contained in our products, (2) evaluating these substances on their environmental impact, and (3) voluntarily reducing or discontinuing their use in case of any environmental risks.

<sup>1</sup> Regulations on the registration, evaluation, authorization, and restriction of chemical substances

#### Process to Minimize Environmental Impact



To promote our initiatives clearly, we set forth our Chemical Substances Management Rank Guidelines to indicate prohibited substances and managed substances in the context of our products and factory activities. Panasonic Group companies are asked to comply with these guidelines, and at the same time, look to purchase from suppliers that also support these guidelines.

#### Chemical Substances Management Rank Guidelines (for Products)

Rank	Definition
Prohibit	Level 1 <ul style="list-style-type: none"> <li>Substances whose use in products is prohibited by laws and regulations</li> <li>Substances whose use in products will be prohibited by laws and regulations within one year</li> <li>Substances whose use in products is prohibited within Panasonic</li> </ul>
	Level 2 <ul style="list-style-type: none"> <li>Substances whose use in products will be prohibited by international treaties or laws on and after a specified date</li> <li>Substances whose use in products is voluntarily restricted by Panasonic</li> </ul>
Manage	<ul style="list-style-type: none"> <li>Substances whose actual use status must be further researched and whose impact on health and safety as well as appropriate treatment must be considered</li> <li>Substances whose use or non-use and the amount of use must be further researched</li> </ul>

#### Chemical Substances Management Rank Guidelines (for Factories)

Rank	Definition
Prohibit	Use of the following substances should be immediately discontinued: <ul style="list-style-type: none"> <li>Carcinogens for humans</li> <li>Ozone depleting substances (excluding HCFCs)</li> <li>Substances whose use is prohibited by Panasonic</li> <li>Chemical substances designated as Class I Specified Chemical Substances by the Japanese Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.</li> <li>Substances whose manufacture is prohibited by the Japanese Industry and Health Act</li> <li>Substances whose manufacture and use are prohibited by international treaties</li> </ul>
	Reduce <ul style="list-style-type: none"> <li>Substances whose use, release and transfer should be identified and reduced</li> <li>Substances other than prohibited substances that might pose risks to human health and the environment</li> </ul>

For a detailed view of our Chemical Substances Management Rank Guidelines, visit:

<http://panasonic.net/procurement/green>

### Management of Chemical Substances in Products

To minimize the environmental impact of chemical substances contained in products, we endeavor to identify chemical substances used in the components and materials of our products, including substances that are prohibited in major developed countries and those specified by laws and regulations such as the RoHS Directive enforced in Europe, and we make every effort to ensure that these substances are not used or contained in our products except in specified cases where the use of replacement substances is extremely difficult. Moving forward, we are committed to conducting environmental impact assessments for managed substances contained in our products, taking steps to reduce the use of substances where the impact on human health and the

environment cannot be ignored, and creating plans to eventually prohibit their use.

### Identifying Chemical Substances in Products

To contribute to the achievement of the global goals set at the WSSD, it is important for us to disclose and communicate information about the chemical substances used in our products across the supply chain, for which we must promote cross-industrial initiatives to establish and disseminate an effective system. We are a member of the Joint Article Management Promotion consortium (JAMP) together with about 370 major companies from various industries, such as chemical, component, and equipment manufacturers. We are proactively formulating, utilizing, and disseminating chemical substance management standards and systems through this organization.

We have been utilizing our chemical substance management system called "GP-Web" since fiscal 2005. Through GP-Web, parts manufacturers have been providing information about the use of chemical substances in their products supplied to Panasonic. In July 2009, we revised the system referring to proposals made at the JAMP and started information communication based on common standards across the supply chain, including upstream manufacturers and our customers.

It is important that we have a clear understanding of the chemical substances contained in our products, including those contained in key component materials that are supplied to us from upstream manufacturers that do not have direct transactional ties with Panasonic. In order to ensure that the communication of this information can flow efficiently, we created an Internet-based e-learning site regarding chemical substance in Japanese, Chinese, and English. In January 2012, the JAMP format was updated in light of revisions to the RoHS Directive by the European Union. As a result, the aforementioned e-learning site was revised in March 2012 with explanations provided to suppliers.

In addition, to deepen understanding about the handling of chemical substance among our overseas suppliers, we conducted workshops in China in fiscal 2011 to provide attendees with a general overview, as well as training on the preparation and submission of data. We extended these workshops to Southeast Asia and other countries in fiscal 2012. In total, these workshops in fiscal 2012 were attended by 1,648 individuals from 1,037 companies over a course of 10 supplier meetings. Practical operating training sessions using PCs were also held on five occasions and were attended by 237 individuals from 186 companies.

 For the JAMP homepage, visit:  
[www.jamp-info.com/english](http://www.jamp-info.com/english)

### Assessing the Environmental Impact of Chemical Substances

Scientifically identifying the impact on human health and the environment of products containing chemical substances is vital to developing products with low environmental impact. We are engaging in activities designed to assess the levels to which customers are exposed to substances of very high concern (SVHC), as well as safety at the time of product use.

To date, we have undertaken assessments on the impact of phthalic acid ester contained in power supply cables and ceramic fibers used in some models of microwave ovens for professional use. As part of our efforts to provide information on the safe use of products containing SVHCs, a requirement under the EU REACH regulation, we created a safety assessment document for public perusal. In each case, exposure was considered to be nominal with little concern for any impact on human health.

 For more on our Management of Chemical Substances in Products, visit:  
[www.panasonic.net/eco/products/chemical\\_substance/reach.html](http://www.panasonic.net/eco/products/chemical_substance/reach.html)

### Reducing the Use of PVC Resin

There continues to be concerns about polyvinyl chloride (PVC) and the generation of hazardous substances through the inappropriate disposal of waste resin, as well as the harmful effects of certain additive agents including phthalic acid ester used to render PVC more pliable. In light of the significant potential for inappropriate disposal of the PVC resin used in the internal wiring of products—due mainly to difficulties associated with the sorting of this resin from used products—we have set a goal of using a substitute material in all new products introduced since April 2011 with the exception of cases where replacement would result in quality or procurement issues.

We completed our product quality evaluations in March 2011, and since April 2011, we have switched 802 tons of PVC-made wire products to non-PVC mainly for our AVC products, achieving our target.

## Management of Chemical Substances at Factories

We have continued to promote cutbacks in the use, release, and transfer of chemical substances at our factories since fiscal 2000. Compared with levels recorded in fiscal 1999, we reduced the amount of chemical substances used by 81 percent in fiscal 2006. Over this same period, we also achieved a reduction of 60 percent in the release and transfer of chemical substances. Thereafter, particular attention was placed on substances that have a large amount of release and transfer. As a result, we reduced the amounts of key reduction-target substances by 46 percent in fiscal 2011 compared with fiscal 2006.

Reflecting international trends in chemical substance management, our reduction measures have focused increasingly on particularly hazardous substances from fiscal 2011. Under our Chemical Substances Management Rank Guidelines Ver. 4 for factories, we have focused our management on select chemical substances that are hazardous to human health and the environment. Moreover, we classified chemical substances based on their hazardousness and created a unique indicator, "impact on human health and the environment,"<sup>1</sup> by specifying a "hazardousness factor" for each substance.

Based on data collected during fiscal 2011, we identified the targets of reducing the impact on human health and the environment by 2.5 percent in fiscal 2012, 5 percent in fiscal 2013, and 15 percent in fiscal 2019. In fiscal 2012, we installed low-hazardous substance removal and deodorization equipment, improved yields and recycling, and reduced the use of solvents through enhanced processes. These efforts enabled us to reduce the impact on human health and the environment by 5.3 percent.

<sup>1</sup> Impact on human health and the environment = Hazardous factor x Release/transfer amount<sup>2</sup>

<sup>2</sup> Emissions: Includes air emissions, water for public use, and soil emissions. Amount of movement: Includes substances transferred as waste, as well as those discharged into the sewage system. Recycled amount that is free of charge or accompanies treatment cost under the Waste Management Law is included in "Recycled." (Different from the transferred amount reported under the PRTR law.)

### Approach to the Management of Substances Based on the Chemical Substances Management Rank Guidelines Ver. 4 (for Factories)

#### Governing laws and regulations (Japan)

- Regulations on the management of chemical substances (PRTR Act, etc.)
- Regulations on environmental conservation (environmental criteria under the Basic Environment Act, etc.)
- Regulations on occupational health and safety (Industrial Safety and Health Act)
- International treaties (Stockholm Convention on Persistent Organic Pollutants, etc.)

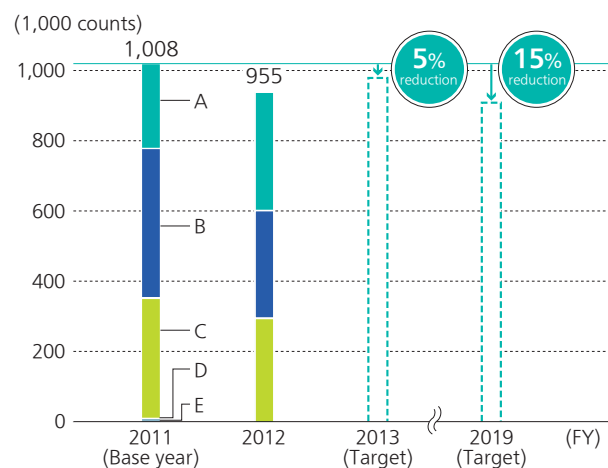
#### Hazards to be included in assessment targets

- **Hazards to human health:**  
Carcinogenicity, mutagenicity, reproductive toxicity, and acute toxicity
- **Hazards to the environment:**  
Substances that might cause ecological toxicity, ozone layer depletion, global warming, or generate photochemical oxidants

#### Classification of Hazards

Classification	Hazards to human health	Hazards to the environment	Hazardousness factor
A	Carcinogenicity	Ozone layer depletion	x 10,000
B	Serious direct impact		x 1,000
C	Medium impact		x 100
D	Small or indirect impact		x 10
E	Minor impact or not assessed		x 1

#### Impact on Human Health and the Environment, Mid- to Long-term Targets and Results



Note: Overseas business sites of SANYO Electric are not included.



## Biodiversity

### Approach to Biodiversity

Our society benefits from a multitude of nature's blessings grounded upon biodiversity, known as ecosystem services. This biodiversity, however, is experiencing damage of historically unprecedented proportion and speed. Corporate enterprises are accordingly now expected to address issues of conservation and sustainable use of resources.

We are committed to properly understanding the impact of our business activities on biodiversity and contributing to conservation. To this end, we are promoting initiatives in cooperation with local governments, environmental conservation NPO/NGOs, and specialized agencies.

Since 2009, we have identified and are promoting action in three areas where our business activities affect biodiversity: products, land use, and procurement.

### Initiatives in Products

Together with the NGO BirdLife International, we have established a third-party assessment system to provide customers with information about product contributions to biodiversity. Through this system, we assess products that are related closely to biodiversity.

Furthermore, in fiscal 2012, we reviewed our green product criteria related to biodiversity, and are revising guidelines for more specificity on materials and functions in order to develop and promote products that make a contribution to biodiversity.

### Initiatives in Land Use

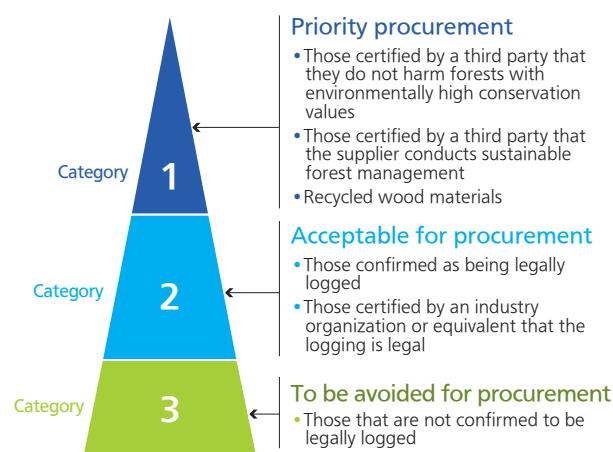
We are aiming to contribute to the conservation of biodiversity through greenery at our business sites. To date, we have surveyed biodiversity contribution possibilities at our 121 business sites in Japan, and selected a group of 12 sites in the Moriguchi and Kadoma districts, including our Osaka headquarters, as a model case. Our plan is to strengthen the ecological network and to contribute to urban development complementary to nature in the area between Tsurumi Ryokuchi Park in the south and the Yodo River (a River Bureau Administration-designated "Class A" trunk waterway) running in the north. In fiscal 2011, we established a committee of local governments, universities, and corporate members to promote activities. This year, we are taking the first step in favor of biodiversity by creating green spaces on the grounds of our business sites. We will be able to survey the effects of green space by directly monitoring nature in close proximity to us. We will also have the opportunity to study the environment through the lens of biodiversity.

At our 'eco ideas' Factory Biwako in Kusatsu, Shiga Prefecture, Japan, we foster our connection with Lake Biwa, the surrounding forest, and other green areas around the plant. With cooperation among our employees and specialists, we strive to maintain the areas around the plant through responsible stewardship of the vegetation, natural environment, and wildlife in the area.

### Initiatives in Procurement

In an effort to address biodiversity conservation and sustainability, we consulted extensively with World Wide Fund for Nature (WWF) Japan and formulated the Panasonic Group Green Procurement Guidelines for Wood. In fiscal 2012, the total procurement of timber and wood materials was measured at approximately 420,000 m<sup>3</sup>. By category, this breaks down to 75 percent meeting Category 1 "Priority" procurement standards (a 4-point year-on-year increase), 25 percent in the Category 2 "Acceptable" (a 3-point year-on-year decrease), and 0.6 percent in the Category 3 "To Be Avoided" (a 0.5-point year-on-year decrease). We continue to aim toward reducing our Category 3 procurement to nearly zero by the end of fiscal 2013.

#### Green Procurement Guidelines for Wood



### Partnership with WWF Japan

Since 2007, we have been promoting the Yellow Sea Ecoregion Support Project, a seven-year partnership with WWF Japan. The project aims to implement measures required for the sustainable control and conservation of the Yellow Sea Ecoregion, a body of sea water enclosed by China and the Korean peninsula, an area known for the world's largest continental shelf.



# Supply Chain

Our suppliers are partners who help us to develop products that meet our customers' expectations. We are committed to providing function and value for our customers, and we do this by establishing relationships of mutual trust and cooperation with our suppliers. Growing stakeholder demands for supply chain transparency and accountability also create an opportunity to strengthen our partnership with suppliers and to make further efforts to fulfill our corporate social responsibility.



## CSR Procurement

We concentrate our business with suppliers that have outstanding technologies and quality along with a strong commitment to CSR. Business partners agree with the Panasonic management philosophy and CSR procurement guidelines, as well as sign a Standard Purchase Agreement before commencing business. Each of these elements detail our standards for suppliers, and we regularly assess our business partners for QCDS (Quality, Cost, Delivery and Service) standard, management's performance, and CSR activities.

We have created a CSR-conscious approach to procurement that includes five core areas:

### Clean Procurement

We strive to conduct fair and honest transactions with our suppliers, and our Clean Procurement Declaration transparently details our standards to current and prospective suppliers.

### Green Procurement

In our business partnerships, we require suppliers to comply with our Green Procurement Policy, and we give priority to suppliers that have demonstrated concrete efforts to reduce their environmental impacts.

### Compliance

As a public entity of society, compliance is a major component of achieving our vision. We adhere to the laws and regulations of each country and region where we do business and maintain a strong sense of ethics to conduct our business activities. We also "self-check" ourselves by asking employees responsible for procurement to self-assess whether we conduct fair and honest transactions with our suppliers based on our internal transaction rules. We also provide them with regular training on compliance.

### Information Security

Securely and responsibly managing business matters, as well as supplier and employee data is a key element of our responsibility as a company. We have created our own rigorous information security policies, and we require our suppliers to respect the same level of policies.

### Human Rights, Labor, and Health & Safety

Panasonic's Standard Purchase Agreement and other contracts require suppliers to comply with policies for equal opportunity employment, prevention

of discrimination, respect for privacy, and sound relationships between the company and its employees. Suppliers also strive to provide workplaces that are safe and not harmful to employees' health.

We use supplier evaluations and a supplier information database that is shared throughout our company. We use a similar product chemical substance management system to gather data on the chemical contents in all of our parts and materials.

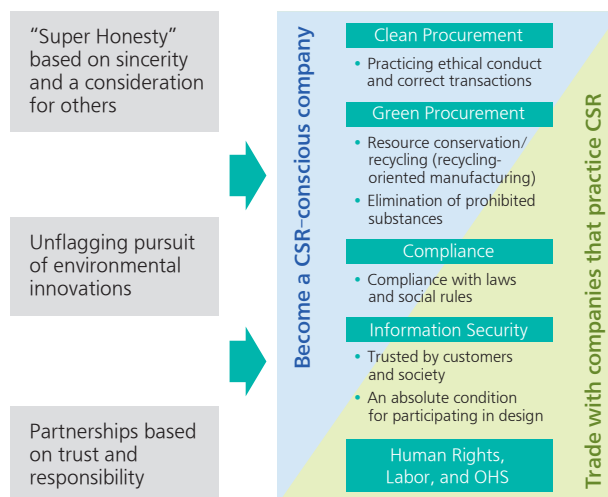
We require all suppliers to obtain ISO 9001 and ISO 14001 certification.

Every year, we hold the Panasonic Excellent Partners Meeting to further enhance understanding of our procurement policies, commitments, and standards. At this meeting, we also review our CSR procurement standards. We encourage the exchange of ideas at this meeting to adopt a unified stance for contributing to society across Panasonic's supply chain.

We also provide our Panasonic Fair Business Hotline, which receives reports from third parties, including our suppliers, about actual or suspected non-compliance violations with our Panasonic Code of Conduct and/or our procurement standards.

### CSR Procurement Approach

**An enterprise that fails to practice CSR procurement will be neglected by society today**



For more information about our approach to CSR procurement, visit: [www.panasonic.net/csr/procurement](http://www.panasonic.net/csr/procurement)

## Green Procurement

We can improve our commitment to the environment by working in collaboration with others. We are therefore coordinating our efforts with suppliers and transportation partners, who form an integral part of our business operations, and are accelerating the activities that extend well beyond corporate boundaries. We strive to minimize our environmental impact across the entire supply chain, focusing on the reduction of CO<sub>2</sub> emissions, resource recycling, chemical substance management, and biodiversity conservation.

We issued our Green Procurement Standards in March 1999 and are actively engaging in green procurement in order to promote the manufacture of environmentally conscious products in partnership with our suppliers. As a first step in collaborating with suppliers and achieving the goals outlined in our Environmental Action Plan—Green Plan 2018—we publicly issued an updated sixth edition of our Green Procurement Standards in January 2012. This renewed policy aims to establish approved supplier groups to deliver products and goods conforming to our vision of transforming into a Green Innovation Company. We urge our suppliers to reduce their environmental impacts in each business activity field, share achievements through collaboration, and encourage upstream supply chain business partners to reduce their environmental impact.

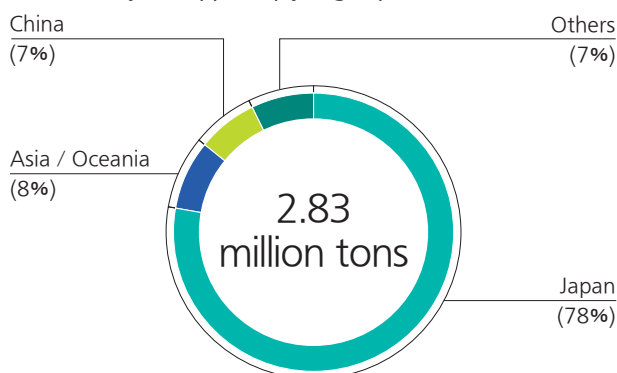
### Calling on Suppliers to Reduce Their Environmental Impacts

In addition to ongoing requests to build environmental management systems and follow our chemical substance management policy, we urge suppliers to accelerate their efforts toward identifying and reducing GHG emissions, recycling resources, and protecting biodiversity.

For GHG emissions, we are using identification trials across the entire supply chain. We began with suppliers chosen according to provisional calculations of the GHG emissions of products delivered to Panasonic in order to first identify any issues arising from suppliers' GHG calculation processes. We briefed raw material suppliers and electric and electronic component manufacturers in July 2011, and processed part, contract, and other manufacturers in November 2011, urging suppliers to calculate and submit appropriate GHG emissions data. We received replies from 80 consenting suppliers, with global calculations taking into account GHG emissions from supplier domains, upstream domains (raw material suppliers and component manufacturers), and downstream domains (domestic import and logistics companies) multiplied by the ratio of sales to Panasonic.

The total emissions of products delivered to Panasonic were approximately 2.71 million tons. We commit to increasing these initiatives while considering factors like economic rationality between Panasonic and suppliers and the completeness of collected data.

### Breakdown of the GHG Emissions of Products Delivered to Panasonic by 80 Suppliers (by Region)



### Sharing Achievement through Collaboration

Since fiscal 2010, we have implemented ECO-VC<sup>1</sup> activities in partnership with our suppliers, which aim to save energy and resources and use, wherever possible, recycled materials while streamlining costs when procuring parts. In addition to reducing CO<sub>2</sub> emissions, we expanded our activities to include recycling-oriented manufacturing in fiscal 2011. In fiscal 2012 we received 901 resource- and energy-saving proposals from our worldwide network of suppliers. We share the best proposals with all suppliers at Excellent Partners meetings, which are attended by suppliers in Japan and from overseas.

In the future, we will extend ECO-VC activities across the entire supply chain around the world. We will also promote globally measures to lower CO<sub>2</sub> emissions, reduce costs, and advance recycling-oriented manufacturing (including minimized resource use, increased recycling, and switching to non-petroleum-based materials).

<sup>1</sup> VC: Value Creation



## Responsible Sourcing of Minerals

We at Panasonic are concerned that the issue of conflict minerals—tin, tantalum, tungsten, and gold sourced from the Democratic Republic of the Congo (DRC) and neighboring countries that may support armed groups that are involved with human rights abuses, environmental destruction, bribery, and other unlawful activities in conflict areas—is one of the most pressing environmental and social concerns facing our supply chain. In order to avoid funding illegal organizations, as well as to fulfill our social responsibility in our procurement practices, we have adopted a policy of avoiding the use of conflict-affected minerals as raw materials.

In December 2010, we communicated this policy to all members of the Panasonic Group, requiring them to make sure that they are not using conflict-affected minerals. In February 2011, we began encouraging our main suppliers to identify their mineral sources to ensure conflict-affected minerals are not being used. The issue is complicated by the fact that, even in conflict areas, there are still companies and individuals who are engaged in legitimate work that is unrelated to the regional conflicts—work that is fundamental to their livelihoods and to the long-term peaceful and sustainable development of the DRC and its neighboring countries. We are therefore making every effort to ensure that our decision not to use conflict-affected minerals does not harm the business activities of legitimate operators in the region or the prospects for longer-term economic development. We are also participating in a pilot project to implement the “OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.” This project provides us with opportunities to engage and collaborate with international organization, governments, NGOs, companies, and industrial associations that are working to address and develop solutions for this issue.

Specifically, our participation in the OECD pilot project between August 2011 and August 2012 is setting us up to do the following: identify products and business areas and select suppliers that is setting subject to conflict-related minerals due diligence; inspect and analyze existing suppliers for risks related to conflict-related minerals; and establish a policy, management system, and process to start a full-scale due diligence program beginning the next fiscal year. Since September 2011, we have made significant progress in meeting these objectives. For example, we have completed a pilot supplier survey for one of our Group companies to investigate the possibility of conflict-affected minerals use and to identify any guidance or lessons that can be applied to our corporate-wide due diligence efforts. From this survey, we have recognized that there are still suppliers that do not recognize the importance of sharing smelter information, and this could pose as an impediment to the due diligence efforts of downstream companies, such as set manufacturers. Thus, this complex issue needs to be addressed with an industry-wide approach.

In addition to our involvement with the OECD pilot project, we are working with other key stakeholders—including NPO/NGOs and industry associations—to understand social requirements, as well as drive industry-wide change. For instance, our participation in the “Responsible Minerals Trade Task Force” of the Japan Electronics and Information Technology Industries Association (JEITA) has provided us with a platform to collaborate with other sectors on conflict-related minerals due diligence.

Understanding the need to raise awareness about this issue, we have also been collaborating with the NPO, Japan Youth Ecology League—a nation-wide network of youth organizations promoting environmental issues—in developing educational materials for younger generations on this serious topic.

# Employees

The purpose of our human resources development is to develop employees who, based on Panasonic's management philosophy, anticipate and respond to changes, take on challenges for creating new business value, and overcome difficult and severe situations. To develop human resources and career positions effectively, we prepare educational and job development programs to help employees feel confident in life and in their work, to aspire toward self-growth, and to respect the diversity of our employees' individuality and abilities. We also strive to improve the level of health and safety in all our working environments.



## Employee Satisfaction

We believe it is vital that we continue to focus on listening to and addressing the needs and concerns of our employees.

Every year in July, Panasonic undertakes an employee satisfaction survey in Japan. Each business domain and some overseas regional sites also conduct their own survey once a year. We have tailored the specific focus of each region's survey to meet the needs of the employees and operations in those regions.

Our survey results for fiscal 2012 show that overall employee satisfaction improved despite a challenging global economic environment. Specifically, employees responded favorably about their overall sense of

satisfaction in Panasonic, as well as their sense of reward in their work. They also expressed favorable beliefs about their ability to openly and without compromise voice their opinions and suggestions to their supervisors.

Another important measure is how our employees view our progress in becoming a globally-oriented company. While our employees explained that progress was made since the previous year's survey, many still feel that more improvement can be made in this area. Specifically, Japanese employees think that communication with overseas employees has room for improvement, as well as their understanding of their own individual role in meeting the challenges of globalization. These results, while trending in the right direction, provide us with key learnings about what we must emphasize going forward.

### Employee Satisfaction Survey Questionnaire (examples)

- Do you find leadership among the leaders of your department in solving issues?
- Do you find your department tends to make judgments and conduct discussion based on "actual goods" and "real working place?"
- Does your department quickly respond to customers' complaints and opinions?
- Does your department's action plans put priority on the customers' needs and satisfaction?
- Does your department closely collaborate with other organizations to meet the requirement from the customers?
- Do you express your opinions actively and without compromise, for solving issues?
- Do you communicate actively with your supervisor to convey necessary information or to make suggestions?
- Is there an atmosphere of empowerment according to skills and regardless of gender in your department?
- Is there an atmosphere of expanding activities in the daily jobs toward globalization of business in your department?
- Is there an atmosphere of active communication with overseas companies and employees?
- Is there an atmosphere of deepened customer-oriented management in your department?
- Do you find the basic business philosophy is practiced throughout the daily jobs in your workplace?
- Is there an atmosphere of fulfilling environmentally conscious activities through the daily jobs in your department?
- Are you creating new approaches in working to bring about changes?
- Do you find your workplace lively and active?
- Do you find your current jobs challenging and interesting?
- Are you satisfied with working at Panasonic?

## Employee Training and Development

Our most recent employee survey revealed that, while our employees are generally satisfied with their roles within Panasonic, there is an undercurrent of concern about their level of preparedness and ability to do their jobs, as well as understandable uncertainty about the ongoing global economic downturn. Providing sound training and development is one of the best ways to ensure our employees continue to flourish and meet their professional and personal goals at Panasonic.

The Panasonic Human Resource Development Company (HRDC) is dedicated to providing employees at every level of the organization with training and education. HRDC's Global Leadership Development Center is dedicated to training Panasonic's leadership in our founder's management philosophy. The Center also offers Basic Business Philosophy seminars to employees at every level of the organization, with special tracks for managers and executives to learn about innovation practices and ways to implement the Basic Business Philosophy.

The HRDC also operates three training centers, each of which offers specialized training to Panasonic's workforce:

- **Corporate Technology Training Center**

Focuses on technology management, hardware and software training, and product safety and information security.

- **Manufacturing Training Center**

Offers training on basic and specialized manufacturing skills, as well as functional training for quality control, environmental management, production engineering, and procurement.

- **Marketing Management Development Training Center**

Trains Panasonic employees and key business partners to better understand the importance of marketing based on the Panasonic management philosophy.

### Institute of Manufacturing (Vietnam)

To achieve our locally-oriented manufacturing objective in Asia, it is vitally important to train our local key personnel with new leadership and manufacturing skills. We established the Institute of Manufacturing (Vietnam) to provide leadership, operational management, and manufacturing training for our key local manufacturing personnel throughout Asia. As a certified vocational training facility, the Institute is also attended by local college students and graduates participating in the Asia-Pacific Economic Cooperation (APEC)'s Technical Personnel Education Project, demonstrating our desire to develop the next generation of local manufacturing talent.

In fiscal 2012, over 250 of our key personnel graduated from the Institute. We will strive to maintain the high number of students going through this program in the months and years ahead.

### Skills Challenge University

Our Skills Challenge University provides opportunities for concentrated study and acquisition of new skills, either by employees who have taken up new positions or by those hoping to move into new positions but who currently lack confidence in their existing skills. This program enables employees to leave their current positions for a set period of time and focus on obtaining new skills through knowledge-building and practical experience.

Skills Challenge University offers employees the ability to enroll in courses across a broad curriculum. Whether seeking more skills in quality assurance, factory innovation, procurement, intellectual property, or environmental and energy technologies, Skills Challenge University gives them the opportunity to further their skills and their understanding of new positions. We believe this program benefits both our employees and our business, providing new and challenging roles while developing a workforce that is empowered to further Panasonic's success.



## Diversity

### Gender Diversity

Gender diversity is an important aspect of Panasonic's diversity goals; we recognize that improving our gender diversity is necessary to maximize our company's intellectual capital. In Japan, increasing the number of women at the managerial and decision-making levels is both a challenge and a priority at senior levels. We at Panasonic are committed to doing our part and meet the expectations of society.

Among our notable successes in fiscal 2012 was the appointment of our first female executive officer in April. We also launched a number of training programs for our female employees, including a career improvement seminar.

### Diversity in the United States

In many of the regions in which we produce and sell our products, diversity is essential to our ability to understand consumers' needs and aspirations. For example, in the United States, where Panasonic North America (PNA) has a wide range of diversity activities aimed at moving the company from a compliance mindset to a culture that values diversity and promotes inclusion.

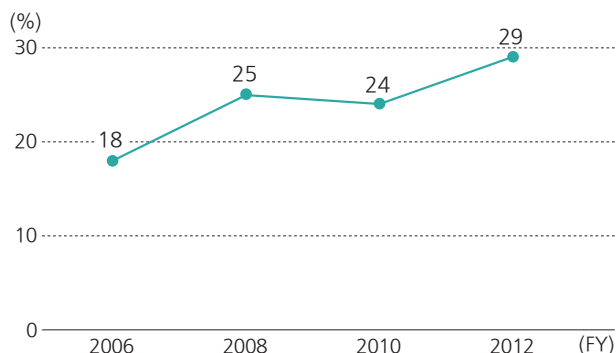
To achieve these goals, PNA has undertaken a number of initiatives aimed at becoming a "best in class" company in the area of diversity and inclusion. These initiatives include cultural training programs and communications and awareness-raising initiatives, such as diversity-focused exhibits and campaigns like our "Multi-Cultural Heritage Month." We also offer flextime, telecommuting, and mobile work, all focused on creating a healthy work-life balance for our workforce.

### Global Initiatives

Overseas, we recognize that if we are to truly understand the local needs in the regions we operate in, we will require local leadership and talent. This is why we are making significant efforts to strengthen the hiring of local people to be our local leaders.

We continue to promote and expand our specialized training programs for regional employees, including trainings on management philosophy and business policy in emerging countries, as well as our two-year Talent for Tomorrow (TfT) program in our European headquarters, which provides opportunities for young employees to be selected to participate in CSR-related projects and learn about the relationship between business and society through corporate citizenship activities or other CSR-related projects.

Percentage of Locally-hired Managing Directors of Overseas Companies



## Health and Safety

Through our approach to ensuring robust occupational health and safety, we maintain a thriving workforce that is capable of meeting their roles and responsibilities and contributing to our company's business goals.

Our approach includes our Occupational Health and Safety Management System, which is based on the international OHSAS 18001 standard and built to define the roles and responsibilities of safe and healthy activities, while promoting them systematically through continuous improvement and regular inspections. We have implemented this system in all production sites of Panasonic Corporation and its key affiliates in Japan, and we are implementing similar initiatives in places outside of Japan to raise health and safety standards globally.

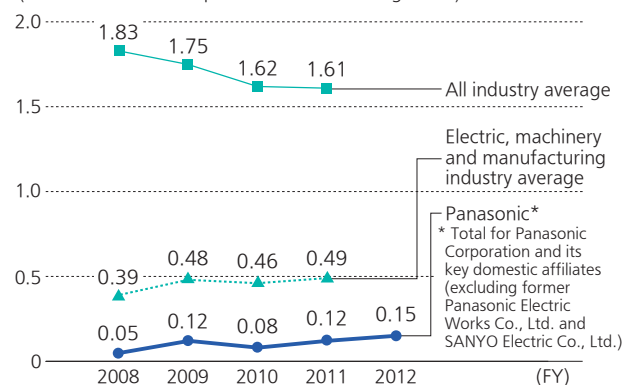
We have also continued to support our Occupational Health and Safety Committee, consisting of members from both labor and management at each business location to investigate and discuss health and safety management issues that affect all employees. The Occupational Health and Safety Council was also established for contractors working on-site, and to ensure compliance with health and safety policies and disseminate information, among other activities.

In order to raise the standards of our overseas health and safety activities above or at least to the same level as those in Japan, we have introduced our "Overseas Safety and Health Assessment," which exists to identify specific trends in overseas countries, as well as areas for improvement in our health and safety management processes outside Japan.

In emerging markets such as China, Malaysia, Thailand, and others, our accident rate is increasing due to the increase in overseas production. In fiscal 2012, we suffered serious incidents in Thailand and China related to the use of machine presses. As a result, we took serious measures to prevent similar accidents from occurring in the future across the Panasonic Group. In addition to awareness raising, training, and information sharing, we revised the safety equipment and working procedures for pressing machines, and we took similar preventative measures with other injuries in the workplace caused by conveyers and processing machines.

### Incident Rate of Work-related Accidents

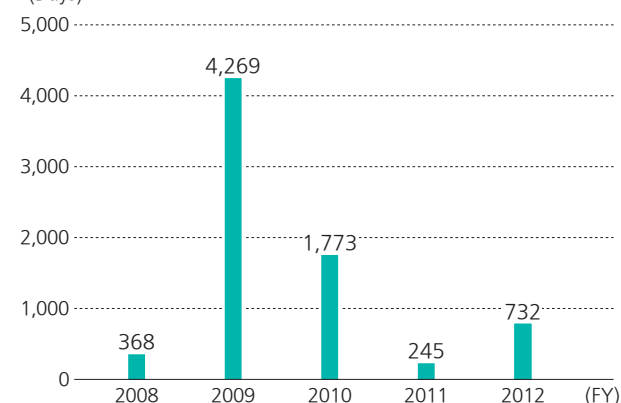
(Number of accidents per one million working hours)



Source: "All industry average" and "Electric, machinery and manufacturing industry average" figures were from the website of the Ministry of Health, Labour and Welfare, Japan.

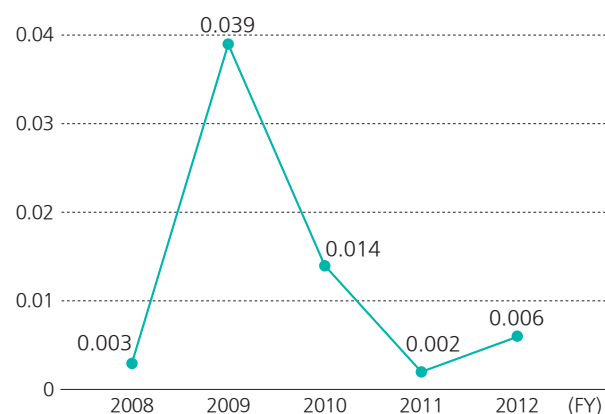
### Time Lost Due to Work-Related Accidents

(Days)



Note: Total time-lost of victims due to labor accidents

### Severity Rate of Accidents



Note: Proportion of time-lost per 1,000 hours of total working hours

## Labor–Management Relations

How we develop and maintain a strong relationship between labor and management is an important process that we see as mutually beneficial. As we grow overseas, it is important that we take a global approach to our labor-management relations.

There are labor and legal risks specific to each country we operate in outside Japan, and it is important that we proactively identify and manage these risks. We are focused especially on strengthening our overseas human resources management to increase employee satisfaction.

To strengthen our overseas human resources management, we created our “Overseas Human Resources and Labor Assessment.” The assessment consists of surveys used to identify and understand areas to be improved in our labor and human resources management outside of Japan.

We have developed a checklist of over 300 items on a range of topics that we send to local companies for their self-assessment. We ask them to provide evidence for their answers, for example, about their communications channels and their compliance with local laws. Then the headquarters and human resources department review the findings with the local company’s managing director. Through this collaborative process, we work with local managing directors to determine how well the human resources system is working and can identify and send feedback about risks they are likely to face, as well as recommendations for improvement.

Our primary focus in fiscal 2012 has been to undertake these assessments in our overseas operations, specifically in China, where the improvement needs are strong, but elsewhere in Asia as well, depending on local needs.

In our labor relations efforts, we respect rights regarding freedom of association and collective bargaining. In Japan, we take a number of measures to make sure that management and labor leaders are in direct communication. We also have several initiatives to make sure regular communication occur between top management and labor union representatives.

- Management–Labor Committees are established for labor union members to express their opinions. The Committees are held once a month and are attended by the President, the managing directors in charge of Personnel, the head of the Union Central Executive Committee, and others.
- Labor–Management Councils are held to provide an opportunity for management to describe and make suggestions to labor union leaders. The Councils are held twice a year and are attended by all executives at the level of managing director and above and by members of the labor union’s Central Executive Committee.

By dedicating our efforts to improving our relationships with labor unions and continuing to respect labor rights, we can improve our impacts in every country in which we operate and smooth the path to steady growth around the globe.



Safety and Health Assessment conducted in China

# Human Rights

Our priority is to conduct business in a manner that respects the fundamental human rights both of our employees and our stakeholders.





## Respecting Fundamental Human Rights

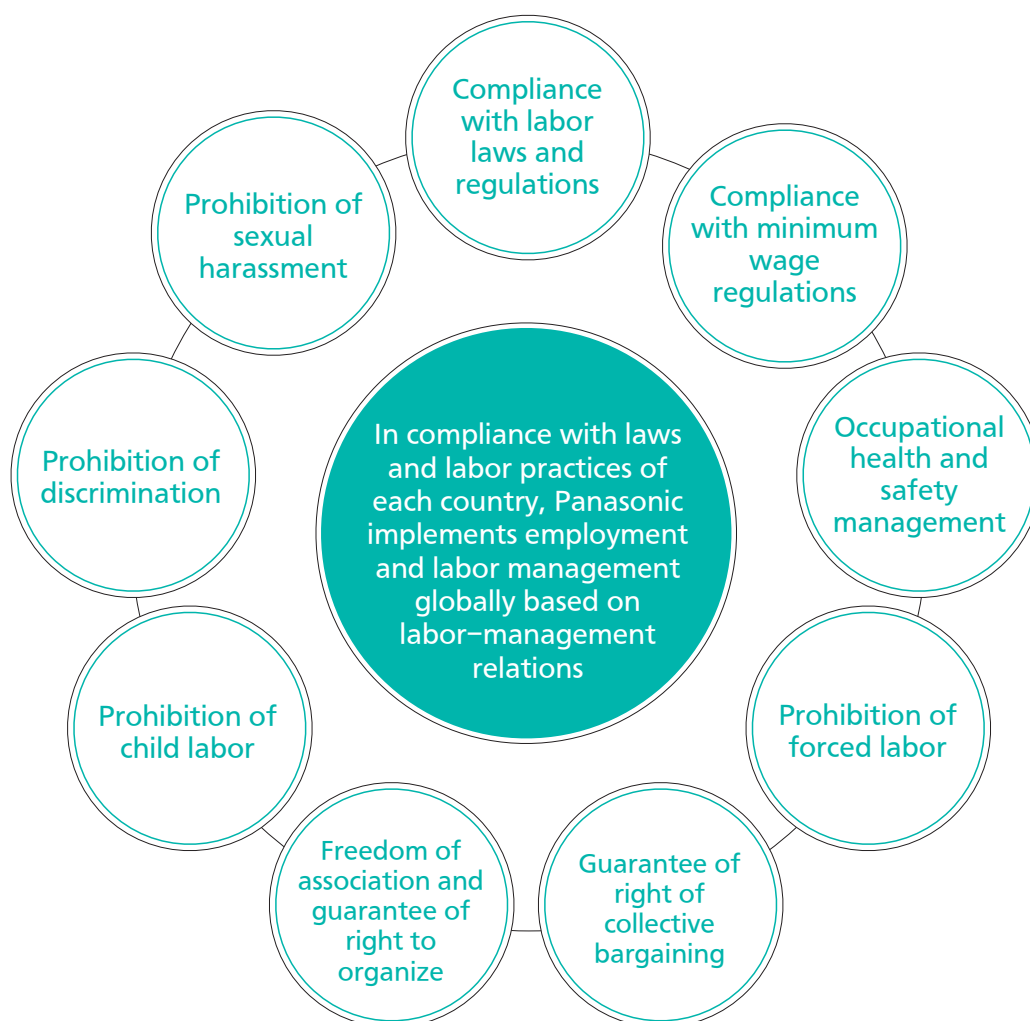
As we expand our business around the world, we recognize the importance of treating not just our employees, but our customers and stakeholders with the utmost concern and respect. For this reason, we respect fundamental human rights in all aspects of our work, and have built fundamental human rights into the basic spirit of our Code of Conduct, as well as into our core values.

One of the ways in which we have embraced fundamental human rights in our operations around the world is through the adoption of the overseas human resources and labor assessment (see page 65). The assessment list includes whether its labor management is proper and consistent with local labor laws (e.g.,

statutory working hours, minimum wage) and local employment systems and practices, and whether there are any potential labor-related risk factors that may affect its business or give rise to trouble.

After their self-assessment, assessors or designated members of their business domains in Japan do the final checking under the auspices of the regional headquarters. "Assessor training courses" are held regularly to develop assessors and systematically enhance their checking skills. Looking forward, we will enhance our labor management capabilities around the world through close coordination between Japan and overseas countries and bolster our capabilities to respect human rights throughout our business.

For examples on how we have addressed human rights issues in our supply chain, see page 56 for an update of our ongoing efforts.



# Fair Operating Practices

As we grow globally, it is important that we understand how to effectively implement our management philosophy and Code of Conduct in different cultures and legal settings around the world. From corruption to anti-competition to non-compliance with laws and regulations, we recognize that maintaining high levels of ethics and integrity is vital to the success of our business and operations.



## Operating with Ethics and Integrity

The Panasonic Code of Conduct outlines our strict adherence to the principles of conducting our daily activities with ethics and integrity. We have created a management structure to detect, report, and address violations of the Code by all employees, including directors and executive officers. Our focus is primarily on these three key areas.

### Risk Assessment

Each Panasonic regional domain is tasked with creating their own point of view on their risk priorities, as well as what measures should be in place to address those risks. When assessing the risks we face, we consider two primary factors: the frequency or likelihood of the risk occurring and the size of the financial impact if it does occur. Although there are region-specific risks, we also have three key priority issues across the globe: fair trade, export/import control, and anti-bribery.

### Awareness-raising and Training

Making sure that employees of Panasonic's operations are aware of our compliance policies, since 2006, we have dedicated the month of September to "Compliance Awareness Month." We use this opportunity to do a thorough review of our employees' understanding of the laws and regulations regarding how to proceed with daily business activities, as well as to determine any instances of non-compliance. During this period, a message regarding compliance is issued from our top management to every employee. We also conduct our "Compliance Awareness Survey" to identify trends in risk awareness and to determine how we can continue to improve our initiatives.

We also implement E-Learning on our Code of Conduct in Japan and in the United States, and are in the process of implementing E-Learning in Asia, including China, as well as other parts of the world. Each region will customize trainings according to which risks are most important locally.

As we expand our overseas business, it is increasingly important to educate employees who are working abroad about the potential compliance risks in the countries they will live in during their overseas assignments. Addressing our potential risks overseas is an important matter, and we provide a "Legal Guidebook for Employees Working in Overseas Countries," as well as relevant training to educate employees about the local legal context and risks.

### Operation of Hotlines (Whistleblowing System)

In addition to making sure Panasonic employees are aware of and are in compliance with our Code of Conduct, we have made every effort to provide all employees, including directors and executive officers, with avenues to raise their concerns about potential business risks in their workplaces.

Panasonic has six hotlines<sup>1</sup> for employees: a Business Ethics Hotline for both domestic and overseas; an Equal Employment Opportunity Office for reporting gender-related matters and sexual harassment; a Fair Trade Hotline; a Fair Business Hotline for our suppliers and customers, for example, who have been forced to pay a bribe; and a procedure to report financial and accounting matters to the Board of Corporate Auditors. Employees can raise concerns through any of these hotlines confidentially so that there is no retaliation of any concerns raised through these hotlines. The company accepts anonymous reporting if a response is unnecessary.

<sup>1</sup> Excludes some countries.

### Fair Trade Compliance

The company entered into plea agreements with the United States Department of Justice (in September 2010) and the Canadian Competition Bureau (in October 2010), and paid fines to resolve claims that its household refrigerator compressor business unit engaged in cartel activity.

The company also accepted the European Commission ("Commission") decision imposing a fine on refrigeration compressors that the Commission announced in December 2011.

In order to assure that no further cartel activity will occur, the company has enhanced its long-standing antitrust compliance policy by implementing a global compliance program specifically designed to prevent cartels. In 2008, the company introduced "Rules Concerning Activity and Relationship with Competitors" to clearly set forth the rules employees must follow when contacting competitors. It also implemented a prior approval system, which requires directors and employees to obtain prior approval from their division directors

and legal managers before contacting competitors. The company also introduced an in-house leniency system to encourage employees with knowledge of possible cartel activity to disclose the relevant facts to management.

Chaired by the president and attended by directors and executive officers related to compliance matters, this compliance committee meets annually to discuss current global compliance issues that are relevant to the company.

In fiscal 2012, the company reviewed the efforts related to the company's compliance activities in the corporate "Compliance Committee" and discussed additional personnel measures. The top management again strongly restated that it is the company's policy not to engage in cartel activities and requests employees mainly in sales and marketing departments to confirm whether they encounter suspicious activities or not.



# Community Involvement and Development

Based on our philosophy of “education” and “coexistence,” we are working to create a more sustainable society by focusing our corporate citizenship activities in two key areas: the environment and the next generation.





## Corporate Citizenship

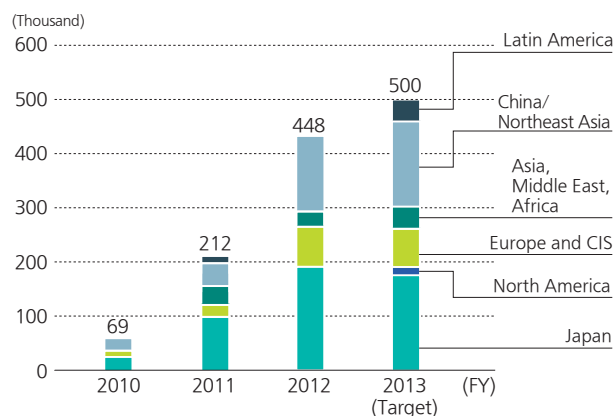
We base our strategy on the philosophy of education and coexistence, and undertake our corporate citizenship activities as an investment in society and a way to ensure the sustainable continuation of activities in our focus areas.

As we work to become “the No. 1 Green Innovation Company in the Electronics Industry,” we have identified three themes as our key strategies: addressing social challenges in emerging and developing countries, global citizenship activities promoted by employees, and developing the next generation. We have also created a powerful framework for solving the highest-priority issues that focuses our resources on core programs, associated programs that relate to those core programs, and support programs that contribute to the success of our core programs.

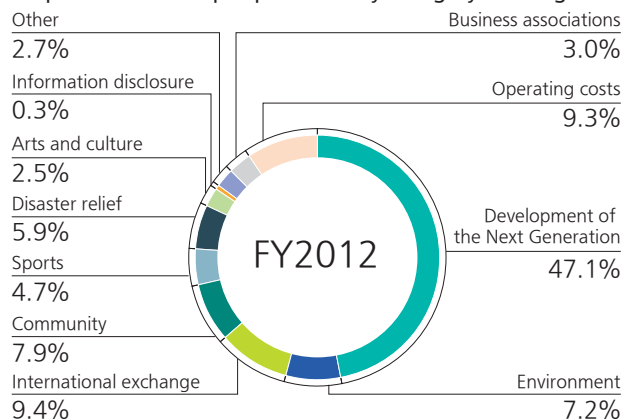
In fiscal 2012, we accelerated environmental education activities in each country using global environmental education programs, and we developed a lifestyle improvement program for emerging and developing countries to contribute to the achievement of the Millennium Development Goals (MDGs). We also continued to promote our global citizenship activities for employees. In total, we contributed approximately 54 percent of our social investments to our overseas corporate citizenship activities, and we continue to work toward achieving our fiscal 2013 goal of 70 percent.

For more details about our corporate citizenship strategy and programs, visit: [www.panasonic.net/citizenship/](http://www.panasonic.net/citizenship/)

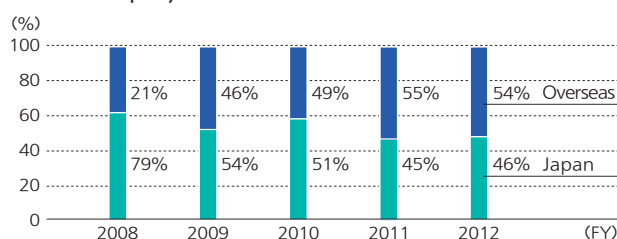
### Number of Global Environmental Education Initiatives Implemented



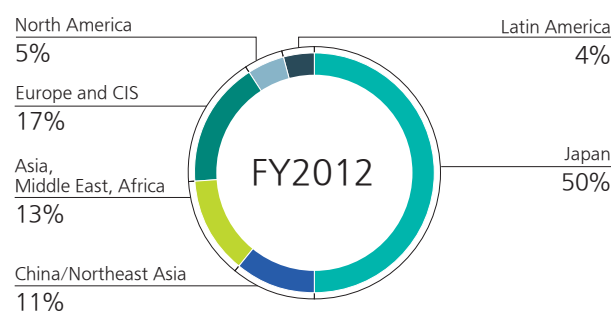
### Corporate Citizenship Expenditure by Category and Region



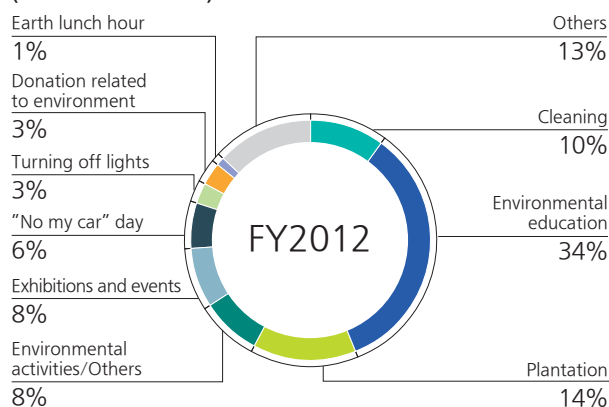
### Corporate Citizenship Expenditure by Region (Ratio of Overseas/Japan)



### Number of Activities of “ECO RELAY<sup>1</sup>” by Region



### Number of Activities of “ECO RELAY<sup>1</sup>” in Overseas (Ratio: out of 100%)



<sup>1</sup> For “ECO RELAY,” see page 72.

## Addressing Social Challenges in Emerging and Developing Countries

Emerging and developing countries around the world are now facing a wide range of challenges, including poverty, energy, education, gender, food, and health and hygiene problems. To tackle these challenges, we have embraced the mission of contributing to the growth of local communities through our business, utilizing our company's technologies, solutions, and expertise to resolve the issues facing local communities. We will also continue to strengthen our collaboration with various stakeholders, including local and international NPO/NGOs, to maximize our investment and social impact.

We also continued our involvement in a number of public-private multi-sectorial collaboration projects. For instance, to strengthen the management of health crises in Asia, we collaborated with the World Health Organization (WHO), the Asian Development Bank (ADB), local governments, nonprofit organizations, and other private enterprises to prepare, prevent, detect and respond to all public health risks. This partnership helped strengthen efforts by countries in Asia to build public health risk management capacities and practices that will, for example, reduce the impact of the severe acute respiratory syndrome (SARS) or Avian Flu.

In India, we launched a new partnership with Everonn Education Foundation and the State Industries Promotion Corporation (SIPCOT) in the Kacheepuram District of Tamil Nadu. This partnership supports the implementation of a vocational training program at the SIPCOT Center, which aims to provide skills development training and technologies to women from less privileged sections of society.

Specifically, our contribution to this partnership is through our Life Innovation Container. By using our solar generation technologies to provide the energy needed to operate televisions and computers, the Center's vocational training programs can be provided as a distance education. Energy solutions such as our Life Innovation Container can be replicated across the state, in suburbs, cities, and rural areas throughout India.



Electricity generated by Life Innovation Container is used for job trainings in India

For more details about our activities to address social challenges in emerging and developing countries, visit:  
[www.panasonic.net/citizenship/solution](http://www.panasonic.net/citizenship/solution)

## Global Citizenship Activities Promoted by Employees

In addition to devoting our technologies to the improvement of peoples' lives around the world, we are also committed to encouraging our employees, their families, and our retirees to dedicate their time and energy to volunteer projects on a global scale. In fiscal 2016, we aim to extend the total length of time that employees devote to volunteer and corporate citizenship activities to over one million hours.

We gather many of our projects under the name of the "Panasonic ECO RELAY for a Sustainable Earth," connecting people, communities, and activities on a global basis, passing on our efforts to the next generation, and helping us bring greater benefits to the world. In fiscal 2012, we conducted a total of over 500 eco projects around the world. Some of the projects Panasonic employees took part in included rice-planting for biodiversity conservation in Yamanashi Prefecture, Japan, and multiple reforestation projects to coincide with 2011 as the "international year of the forest." One specific project took place outside Hamburg, Germany, on October 21, 2011, when Panasonic employees joined an elementary class to plant 3,000 copper beech saplings in a birch forest area. Over this experience, the team learned why the endangered beech trees are important contributors to the local ecosystem.

We also began a series of workshops in fiscal 2012 to identify opportunities to address "base of the pyramid" (BOP) challenges using Panasonic products, solutions, and know-how. This growing, voluntary "study group," though still new, has already enabled interested employees to meet with NPO/NGOs to learn about local issues and share knowledge about Panasonic's innovations. These workshops also discuss and share knowledge with our in-house groups engaged in *pro bono* and other citizenship programs, as well as provide concrete examples that exemplify our vision to be an innovative company. Ultimately, our hope is that these workshops and discussions will lead to commercially viable solutions that will be accessible and bring lasting value to the BOP.

Panasonic Innovation Volunteer Team (PIVoT) is one of our in-house *pro bono* groups. The team strives to leverage Panasonic technologies and the experience and skills of our employees to solve sustainability-related challenges in emerging and developing countries. Specifically, teams of four to five Panasonic employees of varying experiences and expertise are formed and sent to developing and emerging countries, primarily in Asia and Africa, for over a month to engage one-on-one with local NPO/NGO

partner(s), while coordinating with internal and external experts in Japan, to create solutions for the issues that the NPO/NGO partner(s) face locally.

In fiscal 2012, one of our PIVoTs engaged with a local NGO based in Da Nang, a city in central Vietnam, to make improvements to a product called “solar cooker.” Working in an area with a significant population of low-income residents who still rely on firewood to cook their daily meals, this local NGO has been providing these solar cookers for a number of years—offering a clean alternative to firewood-based cooking, which has been linked to local deforestation and lung disease. Until now, these solar cookers have been produced at a price that ultimately left this product out of reach for most of the region’s poor.

Through PIVoT, our team worked closely with the NGO to understand the local environment as well as limitations, and conducted interviews with users of these solar cookers and analyzed the current production process.

By taking advantage of Panasonic’s product development capabilities and manufacturing expertise, we were able to reduce the overall cost of this product.

These volunteer opportunities not only provide the local NPO/NGO partner(s) with much-needed human resource, business development, and problem-solving support, but they also provide challenging opportunities for our employees to contribute their knowledge and skills, gain new experiences, learn new cultures, and develop new relationships. Furthermore, PIVoT projects provide Panasonic with new insights about local sustainability issues that could inform our own product and service development efforts in emerging regions that are key to our future growth.

For more details about our global citizenship activities promoted by employees, visit:

[www.panasonic.net/citizenship/environment](http://www.panasonic.net/citizenship/environment)



*Pro bono activities in Vietnam*

## Developing the Next Generation

In addition to employing every effort to make the world more sustainable today, we are also committed to supporting the sustainable growth of the next generation. We have created Panasonic Kids School to provide a wide variety of programs—particularly targeted at elementary and junior high school students—that support the dreams and futures of children around the world. In fiscal 2012, we educated over 448 thousand children in 29 countries by taking materials from our “Eco Learning Program,” which was developed in 2010 at our Panasonic headquarters, and tailoring the environmental education content for each country. By 2018, we aim to have provided environmental education to two million children across the globe.

In Malaysia, in July 2011, we began environmental education activities in cooperation with the Ministry of Education. Specifically, for 10 elementary and junior high schools in the Selangor region of Malaysia, we addressed the importance of environmental conservation, and incorporated concrete actions for addressing this issue into the class curriculum.



Environmental education activities in Malaysia

In Brazil, we invited elementary school children to our showroom in São Paulo in August 2011 and our factory in Manaus in September 2011.

For more details about our activities in developing the new generation, visit:

[www.panasonic.net/citizenship/education](http://www.panasonic.net/citizenship/education)

# Performance Data

The following tables summarize our performance history and most recent fiscal 2012 results. For more information about our environmental performance, view our 'eco ideas' Report 2012.

## GREEN INDEXES

Items		Results	Targets				
		FY2012	FY2012	FY2013	FY2019		
Contribution to reducing CO2 emissions	Size of contribution in reducing CO2 emissions <sup>1</sup>	40.37 million tons	37.00 million tons	41.00 million tons	<ul style="list-style-type: none"><li>• Increase the size of contribution in reducing CO2 emissions to 120 million tons</li><li>• Make net CO2 emissions peak and decline thereafter (Emissions from production activities and product use)</li></ul>	Be industry No. 1 as a whole	
	Products	37.87 million tons	35.00 million tons	38.45 million tons			
	Energy saving	35.05 million tons	32.00 million tons	34.85 million tons			
	Energy creation	2.82 million tons	3.00 million tons	3.60 million tons			
	Production activities	2.50 million tons	2.00 million tons	2.55 million tons			
Contribution to recycling resources	Total recycled resources used/ total resources used	14.7%	>12% in FY2013		>16%		
	Waste recycling rate	98.9%	98.5%	≥99%	≥99.5%		
Size of Energy Systems Business		¥519.3 billion	¥850 billion in FY2013		¥3 trillion or more		
Percentage of sales for No. 1 eco-conscious products		Approx. 13%	30% in FY2019 (Double FY2010 level)				

## OTHER PERFORMANCE DATA

	Related Pages	FY2008	FY2009	FY2010	FY2011	FY2012
Overseas Sales Percentage	p.2	50%	47%	46%	48%	47%
CO <sub>2</sub> Emissions in Production Activities (ten thousand tons) <sup>2</sup>	pp.39-42	473	423	394	400	356
Emissions of GHG other than CO <sub>2</sub> in Production Activities (CO <sub>2</sub> -equivalent) (ten thousand GWP tons-CO <sub>2</sub> ) <sup>3</sup>	p. 42	30	20	17	14	12
CO <sub>2</sub> Emissions from Non-manufacturing Sites (company-owned office buildings in Japan) (ten thousand tons) <sup>4</sup>	p. 44	18.7	17.7	16.8	17.1	18.0



	Related Pages	FY2008	FY2009	FY2010	FY2011	FY2012
ECO-VC Activities Proposals by Suppliers <sup>5</sup>	p.59	–	–	512	668	901
Percentage of Women in Positions of Responsibility <sup>6</sup> (as of April in each fiscal year)	p.63	4.2%	4.5%	4.7%	5.1%	5.4%
Number of Women in Managerial Positions <sup>7</sup> (as of April in each fiscal year)	p.63	131	169	209	236	258
Percentage of Locally Hired Company Presidents of Overseas Companies	p.63	25%	25%	24%	24%	29%
Disabled Hiring Rate <sup>8</sup>	–	2.10%	2.05%	2.00%	2.05%	2.07%
Number of Employees Working at Home <sup>8</sup>	–	3,000	5,000	5,500	7,000	7,000
Incidence Rate of Work-Related Accidents (accidents per one million working hours) <sup>8</sup>	p.64	0.05	0.12	0.08	0.12	0.15
Time-Lost due to Work-Related Accidents (days) <sup>8</sup>	p.64	368	4,269	1,773	245	732
Severity Rate of Accidents (proportion of time-lost per thousand hours of total working hours) <sup>8</sup>	p.64	0.003	0.039	0.014	0.002	0.006
Overseas Percentage of Corporate Citizenship Expenditure	p.71	21%	46%	49%	55%	54%

## NOTES TO DATA

<sup>1</sup> Due to such factors as the restructuring of our television business and its impact on the per unit amount of the “size of contribution in reducing CO<sub>2</sub> emissions,” we reviewed our fiscal 2013 goals. For a full description of how we define the size of contribution in reducing CO<sub>2</sub> emissions, see page 39.

<sup>2</sup> Factors related to fuels are based on the Guideline for Calculating Greenhouse Gas Emissions (version 2.2) published by the Ministry of the Environment, Japan. The factor for electricity purchased in Japan is set at 0.410 kg-CO<sub>2</sub>/kWh. This factor is also used for electricity purchased by PPS (Power Producer and Supplier). The GHG Protocol's CO<sub>2</sub> emissions factors for each country are used for electricity purchased outside Japan.

<sup>3</sup> GWP (Global Warming Potential): a measure to describe the greenhouse gas impact in CO<sub>2</sub> equivalency.

<sup>4</sup> Scope of the data: Non-manufacturing sites with 100 or more employees. CO<sub>2</sub> emissions factor used for electricity purchased: 0.410 kg-CO<sub>2</sub>/kWh.

<sup>5</sup> ECO-VC Activities started in fiscal 2010.

<sup>6</sup> Positions of responsibility include positions such as coordinator or counselor. This figure is for Panasonic Corporation and its key domestic affiliates (excluding former Panasonic Electric Works Co., Ltd. and SANYO Electric CO., Ltd.).

<sup>7</sup> Managerial position is defined as section leader or higher. This figure is for Panasonic Corporation and its key domestic affiliates (excluding former Panasonic Electric Works Co., Ltd. and SANYO Electric CO., Ltd.).

<sup>8</sup> Total for Panasonic Corporation and its key domestic affiliates (excluding former Panasonic Electric Works Co., Ltd. and SANYO Electric CO., Ltd.).

# Report Content Indexes

To promote a standardized approach to sustainability reporting, we used the ISO 26000 Core Subjects and GRI G3.1 Sustainability Reporting Guidelines. Based on the GRI Application Levels System, we self-declare our reporting level to be Application Level B.

For a detailed explanation of the ISO 26000 standard, visit: [www.iso.org](http://www.iso.org).

For a detailed explanation of the GRI guidelines, visit: [www.globalreporting.org](http://www.globalreporting.org).

## ISO 26000

Core Subjects	Issues	Relevant Panasonic Engagement	Related Pages
Organizational Governance	1. Organizational governance 2. Principles and considerations 3. Decision-making processes and structures	Our Social Responsibility and Priorities Our Commitments and Engagements Corporate Governance	pp.6-7 pp.16-17 p.18
Human Rights	1. Due diligence 2. Human rights risk situations 3. Avoidance of complicity 4. Resolving grievances 5. Discrimination and vulnerable groups 6. Civil and political rights 7. Economic, social and cultural rights 8. Fundamental principles and rights at work	Labor-Management Relations Respecting Fundamental Human Rights	p.65 p.67
Labour Practices	1. Employment and employment relationships 2. Conditions of work and social protection 3. Social dialogue 4. Health and safety at work 5. Human development and training in the workplace	Employee Satisfaction Employee Training and Development Diversity Health and Safety Labor-Management Relations	p.61 p.62 p.63 p.64 p.65
The Environment	1. Prevention of pollution 2. Sustainable resource use 3. Climate change mitigation and adaptation 4. Protection of the environment, biodiversity and restoration of natural habitats	The Environment	pp.38-55 See also our 'eco ideas' Report 2012
Fair Operating Practices	1. Anti-corruption 2. Responsible political involvement 3. Fair competition 4. Promoting social responsibility in the value chain 5. Respect for property rights	Risk Management CSR Procurement Collaboration with Suppliers Operating with Ethics and Integrity	pp.19-21 p.57 p.58 p.69
Consumer Issues	1. Fair marketing, factual and unbiased information and fair contractual practices 2. Protecting consumers' health and safety 3. Sustainable consumption 4. Consumer service, support, and complaint and dispute resolution 5. Consumer data protection and privacy 6. Access to essential services 7. Education and awareness	Eco-conscious Products Initiatives for Resources Recycling-oriented Products Energy-creating, Energy-storing, and Energy-saving Products Comprehensive Energy Solutions Solutions for Local and Social Challenges Product Quality and Safety Environmental Labeling Communication Policy of Panasonic Information Security Customer Satisfaction	p.25 p.26 pp.27-29  p.30 pp.31-33 pp.34-35 p.36 pp.36-37 p.37 p.37
Community Involvement and Development	1. Community involvement 2. Education and culture 3. Employment creation and skills development 4. Technology development and access 5. Wealth and income creation 6. Health 7. Social investment	Solutions for Local and Social Challenges Corporate Citizenship	pp.31-33 pp.71-73

## GRI3.1

STANDARD DISCLOSURES PART I: Profile Disclosures			Location and Notes
Strategy and Analysis	1.1	Message from our president	p. 3
	1.2	Key impacts, risks, and opportunities	pp. 3, 4-5, 6-7, 8-15, 19-21, 74
Organizational Profile	2.1-2.9	Organizational profile, reporting scale, and changes to organization	p. 2. See also our Annual Report 2012.
	2.10	Awards received	p. 80
Report Parameters	3.1-3.3, 3.5	Reporting period, cycle, past reports, and process for defining report content	Inside cover. Previous reports and their dates of issue can be found on our corporate website.
	3.4	Contact point	p. 81
	3.6-3.8	Boundary of the report	Inside cover. There are no specific limitations on the scope or boundary of this report. There is, however, opportunity to expand future reporting beyond our operations. There are no significant differences in basis for reporting across Panasonic entities that would affect comparability from period to period and/or between organizations.
	3.9	Data measurement techniques	We have used data measurement techniques consistent with global standards. More information on specific measurements and calculations is included in the Performance Data section of this report and throughout our other annual reports.
	3.10-3.11	Significant changes or re-statements from previous reporting periods	There are no significant changes or re-statements of information provided in earlier reports.
	3.12	Standard report disclosure	pp. 76-79
	3.13	External assurance policy and practice	Inside cover.
Governance, Commitments, and Engagement	4.1-4.7, 4.9-4.10	Corporate governance structure, policies, and arrangements	p. 18. See also our Annual Report 2012 and corporate website for our Corporate Governance Structure and Policy on Control of Panasonic Corporation and a complete list of our company Directors and Chair.
	4.8	Statements of mission or values, codes of conduct, and principles	pp. 4-5, 6-7, 16
	4.11	Precautionary approach or principle	pp. 19, 34, 37, 69
	4.12	Endorsement of externally developed charters and principles	Our Code of Conduct incorporates the essence of, among other things, the Universal Declaration of Human Rights, the International Labour Organization Declaration on Fundamental Principles and Rights at Work, and the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises.
	4.13	Memberships in associations and advocacy organizations	We exercise leadership in the Nippon Keidanren, Japan Electronics and Information Technology Industries Association (JEITA), CSR Europe, Japan Business Council in Europe, and Business for Social Responsibility.
	4.14	List of stakeholder groups engaged by the organization	p. 17. We currently do not provide a full list of our engagements.
	4.15-4.17	Approach to stakeholder engagement	pp. 16-17. We currently do not provide a complete list of the frequency of engagements by type and group.
STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMA)			Location and Notes
DMA	Economic	Economic performance and market presence	p. 2. See also our Annual Report 2012.
		Indirect economic impacts	pp. 31-33, 70-73
	Environment	Materials	pp. 26, 46-49. See also pp. 7, 19-22 in our 'eco ideas' Report 2012.
		Energy	pp. 27-30, 39-42. See also pp. 11-16 in our 'eco ideas' Report 2012.
		Water	p. 51. See also p. 24 in our 'eco ideas' Report 2012.
		Biodiversity	p. 55. See also p. 27 in our 'eco ideas' Report 2012.
		Emissions, effluents and waste	pp. 52-54. See also pp. 25-26 in our 'eco ideas' Report 2012.
		Products and services	pp. 25-30. See also pp. 7, 9, 12-14 in our 'eco ideas' Report 2012.
		Compliance	p. 18.
		Transport	p. 45. See also p. 18 in our 'eco ideas' Report 2012.
		Overall	pp. 4-5. See also pp. 4-6 in our 'eco ideas' Report 2012.
	Labor	Employment	See our corporate website for Careers.
		Labor/management relations	p. 65
		Occupational health and safety	p. 64
		Training and education	p. 62

DMA	Labor	Diversity and equal opportunity	p. 63
		Equal remuneration for women and men	We have historically adopted the “wage by job” system. Our reward structure does not discriminate by gender.
	Human Rights	Investment and procurement practices	p. 57
		Non-discrimination	p. 67
		Freedom of association and collective bargaining	p. 67
		Security practices	p. 67
		Indigenous rights	We currently do not have an explicit management approach on indigenous rights.
		Assessment and remediation	p. 67
	Society	Local communities	pp. 70-73
		Corruption	p. 69
		Public policy	By exercising leadership in the Nippon Keidanren, JEITA, CSR Europe, and Japan Business Council in Europe, we participate in influencing or developing public policies.
		Anti-competitive behavior	p. 69
		Compliance	p. 18
	Product Responsibility	Customer health and safety	pp. 34-35
		Product and service labeling and marketing communications	pp. 36-37
		Customer privacy	p. 36-37
		Compliance	pp. 34-35
STANDARD DISCLOSURES PART III: Performance Indicators			Location and Notes
Environmental	EN1	Materials used by weight or volume	pp. 46-47. See also pp. 19, 37 in our ‘eco ideas’ Report 2012. We currently do not provide data by weight or volume.
	EN2	Percentage of materials used that are recycled input materials	pp. 26, 46-47. See also pp. 7, 19 in our ‘eco ideas’ Report 2012.
	EN3-EN4	Direct and indirect energy consumption by primary source	See p. 37 in our ‘eco ideas’ Report 2012.
	EN5*	Energy saved due to conservation and efficiency improvements	pp. 39-45. See also pp. 11, 15-18 in our ‘eco ideas’ Report 2012.
	EN6*	Initiatives for energy-efficient or renewable energy based products	pp. 25, 27-30, 39-40. See also pp. 9, 11-14 in our ‘eco ideas’ Report 2012.
	EN7*	Initiatives for indirect energy consumption reductions	pp. 41-45, 58. See also pp. 15-18, 29 in our ‘eco ideas’ Report 2012.
	EN8	Water withdrawal by source	p. 51. See also p. 24 in our ‘eco ideas’ Report 2012.
	EN10	Water recycled and reused	p. 51. See also p. 24 in our ‘eco ideas’ Report 2012.
	EN11	Location and size of land in areas of high biodiversity value	p. 55. See also p. 27 in our ‘eco ideas’ Report 2012. We currently do not provide data for land size.
	EN12	Significant impacts on biodiversity	p. 55. See also p. 27 in our ‘eco ideas’ Report 2012.
	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	p. 55. See also p. 27 in our ‘eco ideas’ Report 2012.
	EN16-EN17	Direct and indirect greenhouse gas emissions by weight	pp. 39-45, 74-75. See also pp. 15-18 in our ‘eco ideas’ Report 2012.
	EN18*	Initiatives for greenhouse gas emissions reductions	pp. 39-45, 74-75. See also pp. 11-18 in our ‘eco ideas’ Report 2012.
	EN19	Emissions of ozone-depleting substances by weight	pp. 42, 74-75. See also p. 16 in our ‘eco ideas’ Report 2012.
	EN20	NOx, SOx, and other significant air emissions by type and weight	pp. 42, 74-75. See also pp. 16, 37 in our ‘eco ideas’ Report 2012.
EN21	Water discharge by quality and destination	p. 51. See also p. 24 in our ‘eco ideas’ Report 2012. We currently do not provide data by quality and destination.	
EN22	Waste by type and disposal method	p. 50. See also p. 23 in our ‘eco ideas’ Report 2012 and our Environmental Activities website <a href="http://panasonic.net/eco/factory/resource_conservation/">http://panasonic.net/eco/factory/resource_conservation/</a> . We currently do not provide data by type and disposal method.	
EN23	Significant spills	p. 51. See also p. 24 in our ‘eco ideas’ Report 2012. We currently do not provide data by spill count and volume.	



Environmental	EN26	Initiatives to mitigate environmental impacts of products	pp. 25, 27-30, 39-40, 46-49, 51-55, 59. See also pp. 9, 11-14, 19-22, 24-27, 29 in our 'eco ideas' Report 2012.
	EN27	Percentage of products sold and their packaging materials reclaimed	p. 25. See also p. 9 in our 'eco ideas' Report 2012. We currently do not provide data by percentage sold and materials reclaimed.
	EN28	Significant fines and non-monetary sanctions for non-compliance	See our corporate website for Compliance Management at Factories.
	EN29*	Environmental impacts of transporting products	p. 45. See also p. 18 in our 'eco ideas' Report 2012.
	EN30	Environmental protection expenditures and investments by type	See p. 38 in 'eco ideas' Report 2012.
Labor Practices and Decent Work	LA1	Workforce by employment type, employment contract, and region	p. 2. We provide a breakdown of our workforce by region.
	LA2	Employee turnover by age group, gender, and region	We currently do not provide employee turnover data.
	LA4-5	Collective bargaining agreements and minimum notice period(s)	p. 65. We currently do not provide data for percentage of employees covered.
	LA7-8	Injury, occupational diseases, lost days, absenteeism, work-related fatalities, and programs for serious diseases	pp. 64, 74-75
	LA10	Employee training	p. 62
	LA13	Composition of governance bodies and breakdown of employees	p. 63
	LA14	Basic salary of men to women	We have historically adopted the "wage by job" system. Our reward structure does not discriminate by gender.
	LA15	Return to work and retention rates after parental leave	We currently do not provide this data.
Human Rights	HR1-4	Investment agreements that include human rights clauses, suppliers and contractors that have undergone screening on human rights, training on human rights, and incidents of discrimination	p. 67. We currently do not provide data for the percentage and number of agreements, screenings, and trainings on human rights.
	HR5-HR7	Freedom of association, collective bargaining, child labor, and forced and compulsory labor	p. 67
	HR10-11	Human rights assessment and remediation	p. 67. We currently do not provide data for the percentage and number of assessments and remediation activities.
Society	SO1, 9-10	Practices that assess impacts of operations on communities, operations with significant negative impacts, and prevention and mitigation measures	pp. 14-15, 17, 55, 70-73
	SO2-4	Business units analyzed for risks related to corruption, anti-corruption policies and procedures, and actions taken in response to incidents of corruption	pp. 18, 69
	SO5	Public policy engagement	By exercising leadership in the Nippon Keidanren, JEITA, CSR Europe, and Japan Business Council in Europe, we participate in influencing or developing public policies.
	SO8	Significant fines and non-monetary sanctions for non-compliance	p. 69. Violations are reported through our annual reports and press releases.
Product Responsibility	PR1	Assessment of health and safety impacts of products	pp. 25, 34. See also p. 9 in our 'eco ideas' Report 2012.
	PR3	Type of product and service information required by procedures	p. 36. See also our corporate website for Environmental Labels.
	PR5	Practices related to customer satisfaction	p. 17.
	PR6	Marketing communications	p. 36
	PR9	Significant fines and non-monetary sanctions for non-compliance	pp. 34-35. Violations are reported through our annual reports and press releases.
Economic	EC1	Direct economic value generated and distributed	p. 2. See also our Annual Report 2012.
	EC2	Financial implications and other risks due to climate change	pp. 39-40. See also p. 11 in our 'eco ideas' Report 2012.
	EC3	Coverage of the organization's defined benefit plan obligations	See Annual Security Report (in Japanese only)
	EC4	Financial assistance received from government	No significant financial assistance was received from government.
	EC6	Policy, practices, and proportion of spending on locally based suppliers	We report our supplier selection, procurement policies, and expectations, and openly recruit suppliers from around the world. We currently do not provide data for the proportion of spending on locally based suppliers.
	EC7	Local hiring and proportion of management from the local community	pp. 63, 74-75
	EC8	Infrastructure investments provided primarily for public benefit	pp. 14-15, 70-73, 74-75
	EC9	Indirect economic impacts	pp. 31-33, 70-73

# External Recognition

We received a number of recognitions in fiscal 2012 for our sustainability activities, validating our efforts to achieve growth for our company while creating social and environmental impact.

To learn more about our recognitions from outside the company, visit: [www.panasonic.net/csr/recognition](http://www.panasonic.net/csr/recognition).



For the fourth consecutive year, we were awarded the Gold Class distinction in the CSR category by SAM (Sustainable Asset Management), one of the highly recognized asset management companies for sustainability investments, as demonstrated by our high scores on the environment in the Leisure Goods sector, which includes home-appliance makers and others.



For the seventh year in a row, we were recognized by the Dow Jones Sustainability World Index (DJSI World), one of the highly recognized global indexes for socially responsible investment (SRI), as a DJSI World Nominee. The DJSI World recognizes the top 10 percent of the leading 2,500 companies in the world for their economic, environmental, and social performance.



For the twelfth year in a row, we were included in the FTSE4Good Index Series for our performance across three areas of activity—environmental, social, and governance. Launched by the FTSE Group in 2001, the FTSE4Good Index Series was designed to objectively measure the performance of companies that meet globally recognized corporate responsibility standards.

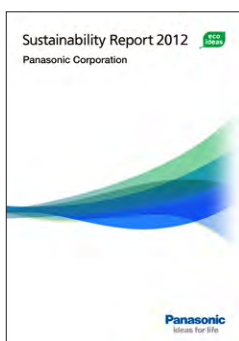


The U.S. Environmental Protection Agency (EPA) awarded our Panasonic Home & Environment Company the 2012 ENERGY STAR® Sustained Excellence Award in recognition for our continued leadership in manufacturing energy-efficient ventilation fans. We were also recognized by the U.S. EPA in 2010 and 2011 as an ENERGY STAR® Partner of the Year.

# Our Sustainability Communications

We report our sustainability performance and activities in a number of formats and locations accessible for various audiences. For more information about our CSR activities, visit our Panasonic CSR website at [www.panasonic.net/csr](http://www.panasonic.net/csr). For more information about our environmental activities, including access

to our 'eco ideas' Report 2012, visit Environmental Activities website at [www.panasonic.net/eco](http://www.panasonic.net/eco). For more information about our business and financial performance, including access to our Annual Report 2012, visit our IR Information website at [www.panasonic.net/ir](http://www.panasonic.net/ir).



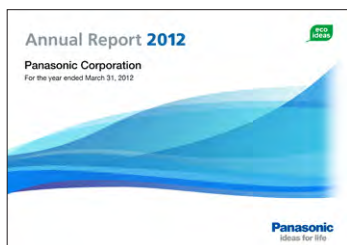
Reporting on details of our CSR activities

<http://www.panasonic.net/csr/>



Reporting on details of our environmental activities

<http://www.panasonic.net/eco/>



Reporting on details of our financial performance and results

[www.panasonic.net/ir/](http://www.panasonic.net/ir/)

Note: Our Annual Report 2012 will be issued in mid-August.



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