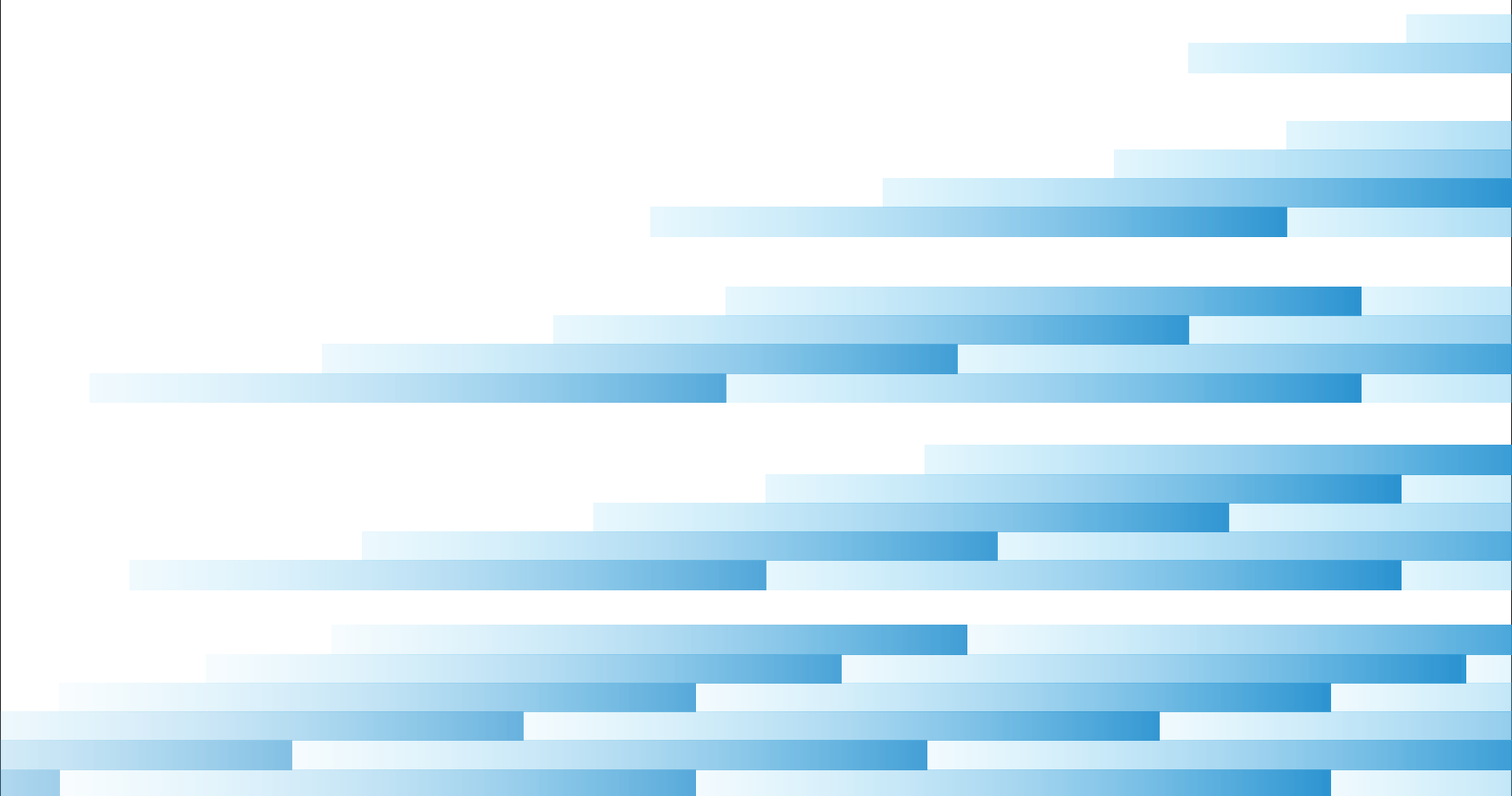


# Sustainability Report **2013**

Panasonic Corporation



**Panasonic**

# About Sustainability Report 2013

## Editorial Policy

In consideration of the increasing importance of sustainability management, Panasonic publishes the Sustainability Report to comprehensively introduce our initiatives towards the society and environment as well as annual relevant data. This year, it was integrated with the former 'eco ideas' Report which contained more details on our environmental activities. Relevant pages from our sustainability website have been compiled into this PDF file.

We used the International Standard, ISO26000:2010, Guidance on social responsibility, specifically the seven core subjects, as well as the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines G3.1 and its principles of sustainability context, stakeholder inclusiveness, materiality, and completeness, to determine the universe of issues relevant to social responsibility. In addition, to determine priority issues, we conducted materiality assessment (Pages 8-10), as well as focusing our environmental reporting on the issues as set forth in the environmental action plan — Green Plan 2018.

Data reported in this report refers to a global result and the name of a country or region is indicated when disclosing data specific to a particular country or region. More detailed information or those by region is disclosed in the Sustainability page on our website.

▶ <http://panasonic.net/sustainability/>

This report is published alongside our Annual Report 2013, which contains detailed information about our business and financial performance.

▶ <http://panasonic.net/ir/>

## Reporting Period and Boundary

Reporting period: Fiscal 2013 (April 1, 2012 - March 31, 2013)

Organization covered: Panasonic Corporation and consolidated subsidiaries

- Data related to manufacturing sites covers all manufacturing sites (300 sites) that have established Environmental Management Systems.
- When companies included in the scope of tabulation are changed, data is corrected in a retrospective manner.
- Data without any indications of fiscal years or regions refers to global results in fiscal 2013.

## Assurance

KPMG AZSA Sustainability Co., Ltd. assured our major environmental performance data in this report and its independent assurance report is contained on Page 217.

## Reference Guidelines

Sustainability Reporting Guidelines G3.1 by the Global Reporting Initiative (GRI)  
Environmental Reporting Guidelines 2012 by the Ministry of the Environment, Japan

\* We provide ISO26000 and GRI3.1 content indexes at the back of this report.

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## Company Profile

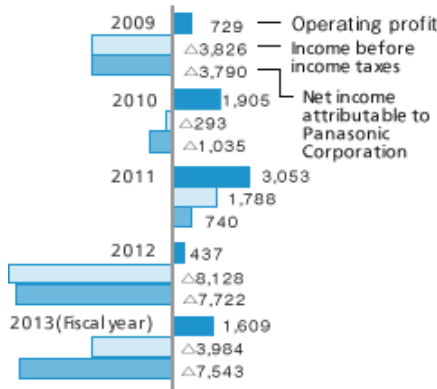
(As of March 31, 2013)

<b>Company Name</b>	Panasonic Corporation	<b>Founded</b>	March, 1918 (incorporated in December, 1935)
<b>Head Office Location</b>	1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan Tel: +81-6-6908-1121	<b>Representative</b>	Kazuhiro Tsuga, President
		<b>Common Stock</b>	258.7 billion yen

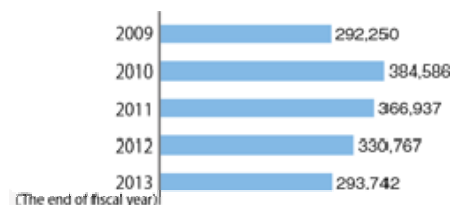
### Sales (billions of yen)



### Profit (billions of yen)



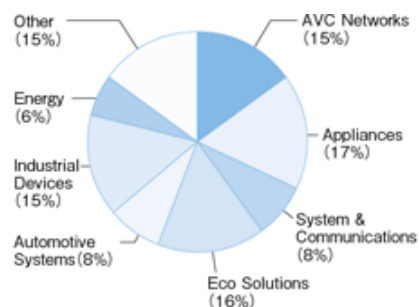
### Number of Employees (persons)



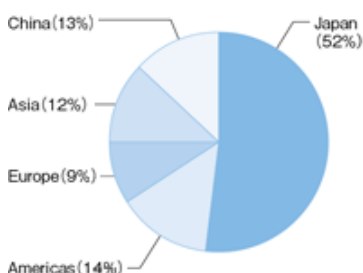
(Note)

- Panasonic's consolidated accounting conforms to U.S. generally accepted accounting principles (U.S. GAAP).
- Number of consolidated companies: 579 (including parent companies)
- Number of associated companies under the equity method: 103
- The symbol '△' indicates loss.

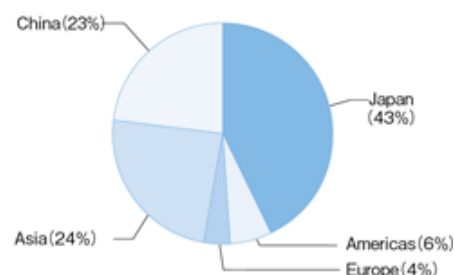
### Sales by Segment (Fiscal 2013)



### Sales by Region (Fiscal 2013)



### Rate of Employees by Region (at the end of Fiscal 2013)



## Main Products and Services

The Panasonic Group's main products and services by segment are as follows:

### AVC Networks

LCD and Plasma TVs, aircraft in-flight entertainment systems, digital cameras, PCs,

### Eco Solutions

Lighting fixtures and electric lamps (including LED lighting), wiring devices, interior furnishing materials, modular kitchen

### Energy

Solar photovoltaic systems, lithium-ion batteries (consumer and in-car use), dry batteries, etc.

home audio equipment, Blu-ray Disc and DVD recorders, etc.

---

## Appliances

Air conditioners, refrigerators, washing machines and clothes dryers, personal-care products, compressors, showcases, microwave ovens, electric motors, electric hot water supply equipment, sanitary equipment, dish washer/dryers, vacuum cleaners, rice cookers, etc.

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## Systems & Communications

Mobile phones, surveillance cameras, settlement and construction verification terminals, IP- related equipment, social infrastructure systems equipment, system integration, and construction and maintenance services, etc.

systems, water-related products, ventilation and air-conditioning equipment, air purifiers, etc.

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## Automotive Systems

Car-use-multimedia-related equipment (car AVC equipment, car navigation systems, etc.), eco-car-related equipment, electrical components, etc.

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## Industrial Devices

Electronic components (capacitors, circuit boards, circuit components, electromechanical components, automation controls), semiconductors, optical devices, electronic materials, etc.

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## Other

Healthcare equipment and services, electronic-components-mounting machines, industrial robots, welding equipment, detached housing, rental apartment housing, land and buildings for sale, home remodeling, imported materials and components, bicycles, etc.

(Note) Other segment consists of Healthcare Company, Manufacturing Solutions Company, PanaHome Corporation and others.

## Our Unchanging Management Philosophy and Sustainability

Our mission at Panasonic is to contribute to the advance of world culture by working to improve society through the products we produce and sell. Panasonic's Basic Management Objective clearly expresses the purpose of our business activities as well as the purpose of our existence. Since the company's founding in 1918, this management philosophy has formed the foundation of all our business activities. As the key element of this philosophy, we have the basic concept of the "company as a public entity of society." All the management resources of a company-including the people, money, and commodities-all come from society.

While the company engages in business activities using the resources entrusted by society, it also develops along with society, and so the company's activities must be transparent, fair, and just. The entire Panasonic Group takes care to ensure that our management and business activities are appropriate for "a public entity of society," and we will continue to implement this management philosophy through manufacturing as our primary business. This is also the very essence of the Panasonic Group's sustainability. As we stand at historical turning points in many areas today-society, economy, global environment-the Panasonic Group will continue to promote sustainability management globally and to contribute to the future of society and the world by proposing the lifestyles of tomorrow.

### *Basic Management Objective*

*Recognizing our responsibilities as industrialists, we will devote ourselves to the progress and development of society and the well-being of people through our business activities, thereby enhancing the quality of life throughout the world.*



Konosuke Matsushita,  
founder of Panasonic Corporation

*"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)

## Top Message



In recent years, along with global population growth and the rapid development of emerging economies, many social issues, including environmental degradation, food scarcity, and medical and sanitary issues, have grown more serious. Especially in emerging countries, while their economies have shown remarkable growth, new issues such as inequality and labor-related problems have also arisen. These issues affect each other and transcend both national borders and traditional categorizations, and successfully addressing them requires that international organizations, governments, industries, businesses, and individual members of society all collaborate more closely, and more actively fulfill their own particular roles.

Since its founding, Panasonic has pursued the implementation of its management philosophy which states, "We will devote ourselves to the progress and development of society and the well-being of people through our business activities, thereby enhancing the quality of life throughout the world." In today's society, addressing the problems which I have just mentioned, certainly involves implementing our management philosophy. With this point firmly in mind, we have decided to clarify and set down in writing a Sustainability Policy for our company. Through its business operations, Panasonic aims to help build a sustainable future, and acting as a public entity of society, aims to help create harmony in society and the global environment.

However, the fact is that, in the last two years-in fiscal 2012 and fiscal 2013-Panasonic recorded substantial losses and thus caused great inconvenience to society. We were unable to sufficiently provide the products and services that customers truly value, and we fully accept that this was the result of failing to make an adequate contribution to help resolve social issues. Having such an understanding of our current situation, in our midterm management plan starting in fiscal 2014, we will carry out various reforms. And we will do our utmost to improve our business performance and push ahead with our growth strategy a step at a time, starting by first identifying "customer value."

Through our business activities, we at Panasonic have long nurtured our "consumer electronics DNA." Making this DNA central to all of our activities, and carrying it forth, we aim to continue to provide "better living" for our customers in various spaces and areas, such as in their homes, communities, businesses, journeys, and automobiles. "Better living" means living more sustainably, more comfortably, more conveniently, more safely, and more securely than we do today. In each of these spaces, there are industries closely related to a given space. We aim to actively build partnerships with key players in those industries, and offer products and services in close collaboration with them.

In the years ahead, we will work with business partners around the globe to fully show forth the individual strengths and abilities of all our employees and to break out of existing frameworks to create greater value. Our goal is to help realize "A Better Life A Better World" for each individual customer. I would like to thank you for your continued support and understanding.

July 2013

President  
Panasonic Corporation

A handwritten signature in black ink, appearing to read "K. Tsuga".



# Sustainability Policy

As a public entity, being in harmony with society and the global environment, we will contribute to the development of a sustainable future through our business.

## 1. Products, Services and Solutions

In collaboration with our global customers and partners, we will develop a sustainable future for society by creating solutions and technologies to solve social and environmental problems and thus enhance the quality of life throughout the world.

## 2. Workplaces and Local Communities

As a global company, we will provide opportunities for dialogue, a comfortable working environment, and a place for growth to all our employees who share our business philosophy.

We respect diverse cultures and values, and will contribute to the development of local regions with a particular focus on local issues.

## 3. Supply Chain

We understand the impact of our business activities on the environment and society, and will work with our suppliers to promote socially responsible procurement.

## 4. Multi-Stakeholder Cooperation

We will work with international organizations, governments, industry, civil society, employees, consumers, investors, NGOs, and specialists to develop proposals for public policy and global rules for industry.

## 5. Human Resources and Innovation

We will foster a collaborative culture to maximize the expertise and abilities of all employees.

We will also provide opportunities for career development to create professionals who bring about changes in society and who create innovative solutions to solve global problems.

## 6. Environment

Toward achieving a sustainable society, we will strive to develop our business through the creation of environmental value.

For this purpose, we will address environmental challenges through our business activities and will expand our environmental initiatives based on collaboration with stakeholders.

## Materiality Analysis

### Selection Process for Reporting Material Issues

#### Taking into consideration global requirements concerning sustainability

Panasonic undertakes a variety of initiatives while respecting international rules and guidelines.



As a global corporation with businesses around the world, Panasonic fulfils its social responsibilities by respectfully following international norms and guidelines related to sustainability and reporting on related activities, such as ISO 26000, the OECD Guidelines for Multinational Enterprises, and GRI. In line with these standards, Panasonic measures the negative impact of its activities on local communities and international society, and makes concerted efforts to reduce this negative impact while working to expand its positive impact on society.

These initiatives are outlined in our Environmental Action Plan and others, and include utilization of the PDCA cycle as a part of our efforts to steadily improve. We also focus on raising awareness of sustainability among employees through compliance training and environmental education programs on a global basis.

## Dialog with our stakeholders

We report with a focus on high-priority matters while considering interests, concerns and expectations of our stakeholders.



In order to continue growing over the longer term while contributing to the realization of a sustainable society, Panasonic believes it is necessary to engage in dialog with stakeholders to understand their interests, concerns and expectations, and then reflect this into management.

Panasonic is constantly engaged in dialog with its stakeholders all over the world, including customers, employees, shareholders, investors, suppliers, national governments, local governments, industrial groups, NPOs, NGOs, and local communities. The Company prioritizes the activities it undertakes and reflects their outcome in reports. Panasonic proactively engages in dialog with partners involved in B-to-B businesses, one of Panasonic's growth strategies in recent years, and investors interested in spreading socially responsible investment (SRI).

## Main Ways of Engaging in Dialog

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### Customers

- Brand surveys of customers around the world
- Voice of customers (VOC) system

### Employees

- Employee satisfaction survey
- Management-Labor Committees and Labor-Management Councils

### Investors

- Scheduled investor relations activities
- Investor interest surveys

### Suppliers

- Procurement seminars and presentations
- ECO-VC activity

### National governments and industrial groups

- Welcome visits by overseas government officials

### NPOs and NGOs

- Multiple stakeholder collaborations
- Cooperation with groups focused on a local community

### Environmental communication

- Exchange of opinions with governments
- Dialog with experts around the world

## Corporate Governance

The following section includes the matters of consolidated companies. The following section is as of June 27, 2013, unless otherwise indicated.

### Basic Policy of Corporate Governance

Under its basic philosophy "A company is a public entity of society," the Company has long been committed to corporate governance. The Company's corporate governance system is based on the Board of Directors, which is responsible for deciding important operational matters for the whole Group and monitoring the execution of business by Directors, and Corporate Auditors and the Board of Corporate Auditors, which are independent from the Board of Directors and responsible for auditing the performance of duties by Directors.

In October, 2012, the Company established the Corporate Strategy Head Division which is responsible for formulating and promoting group-wide strategies and other matters from the perspective of an investor. At the same time, the Company divided some functions such as those of the Corporate R&D Group and the Corporate Legal Affairs Division, which had previously been a function of the head office, and incorporated those functions into the Professional Business Support Sector in order to support the performance of business operations by the Divisional Companies and the business divisions.

In addition, the Company reorganized its business structure in April 2013. Nine (9) business domain companies were constructively dissolved and eighty-eight (88) business units under those business domain companies were consolidated into forty-nine (49) business divisions as basic management units. The Company also established four (4) Divisional Companies (Appliances, Eco Solutions, AVC Networks and Automotive & Industrial Systems) to support the business division system. The Divisional Companies are the aggregation of the business divisions, each of which is a basic unit that is autonomously managed to formulate its respective midterm plans and business plans, and each unit is responsible for R&D, production and sales as well as its cash and profit management, on a global basis. The Company has established the following the corporate governance system suitable for the Company's business structure based on the 4 Divisional Companies and business divisions.

### Corporate Governance Structure

#### 「The Board of Directors and Executive Officer System」

The Company's Board of Directors is composed of seventeen (17) Directors including three (3) Outside Directors. In accordance with the Company Law of Japan and related laws and ordinances (collectively, the "Company Law"), the Board of Directors has ultimate responsibility for administration of the Company's affairs and monitoring of the execution of business by Directors.

The Company has an optimum management and governance structure tailored to the 4 Divisional Company-based management structures. Under this structure, the Company has empowered each of 4 Divisional Companies and business divisions through delegation of authority. At the same time, the Company employs an Executive Officer system to provide for the execution of business at its various domestic and overseas Group companies. This system facilitates the development of optimum corporate strategies that integrate the Group's comprehensive strengths. The Company has twenty-one (21) Executive Officers (excluding those who concurrently serve as Directors), which include top managements of each of 4 Divisional Companies, senior officers responsible for certain foreign regions and officers responsible for corporate functions.

In addition, in order to ensure swift and strategic decision-making, as well as sound and appropriate monitoring at the same time, the Board of Directors, as a decision-making body for Group-wide matters, concentrates on corporate strategies and the supervision of 4 Divisional Companies, while Executive Officers have been delegated with the authority to handle responsibilities relating to day-to-day operations at each of the 4 Divisional Companies. Taking into consideration the diversified scope of its business operations, the Company has opted to maintain a system where Executive Officers, who are most familiar with the specifics of the operations, take an active part in the Board of Directors' meetings. Moreover, to clarify the responsibilities of Directors and create a more agile organization of the Board of Directors, the Company has limited the term of each Director to one year.

#### 「Corporate Auditors and the Board of Corporate Auditors」

Pursuant to the Company Law, the Company has elected Corporate Auditors and established a Board of Corporate Auditors, made up of Corporate Auditors. The Corporate Auditors and Board of Corporate Auditors monitor the status of corporate governance and audit the day-to-day activities of management, including the performance of duties by Directors. The Company has five (5) Corporate Auditors, including three (3) Outside Corporate Auditors. Additionally, the Company elected Corporate Auditors who have substantial finance and accounting knowledge. Corporate Auditors participate in the general meetings of shareholders and the Board of Directors' meetings, receive reports from Directors, Executive Officers, employees and Accounting Auditors, and exercise other auditing authority permitted to Corporate Auditors under the law. Full-time Senior Corporate Auditors also attend important meetings and conduct visiting audits of business offices in order to ensure effective audit. In order to augment internal auditing functions in the Group with 4 Divisional Companies' structure from April 2013, the Company assigns eight (8) non-statutory full-time senior auditors who directly report to the Senior Corporate Auditors of the Company to each of the Divisional

Companies in the same manner as the Company had assigned full time auditors to the business domain companies, etc. to assist Corporate Auditors in audits. The Company also inaugurated regular Panasonic Group Auditor Meetings (comprising a total of eighteen (18) members, of which two (2) were Senior Corporate Auditors of the Company, eight (8) were non-statutory full-time senior auditors of the Divisional Companies and eight (8) non-statutory full-time senior auditors of the Group Companies) chaired by the Senior Corporate Auditors of the Company to enhance collaboration among the Company's Corporate Auditors, non-statutory full-time senior auditors of the Divisional Companies and corporate auditors of the Group companies. In addition, as part of their audit duties, Corporate Auditors maintain close contacts with the Internal Audit Group, which performs business audits and internal control audits, to ensure the efficiency of audits. Corporate Auditors regularly receive from the Internal Audit Group or other sections a regular report regarding the status involving the internal control system and results of audits. Corporate Auditors may request the Internal Audit Group or Accounting Auditors to conduct an investigation, if necessary. Moreover, in order to enhance the effectiveness of the audits conducted by Corporate Auditors and ensure the smooth implementation of audits, the Company has established a Corporate Auditor's Office with a full-time staff of six (6) under the direct control of the Board of Corporate Auditors.

Mr. Yoshihiro Furuta, a Senior Corporate Auditor of the Company, has substantial finance and accounting knowledge, having held the position of General Manager, Accounting, at Matsushita Electric Works, Ltd.

All of the Outside Directors and Outside Corporate Auditors are notified to the Japanese stock exchanges as "independent directors/corporate auditors" pursuant to article 436, paragraph 2 of Securities Listing Regulations of the Tokyo stock exchange and are unlikely to have any conflict of interests with our shareholders.

### 「Group Executive Committee for Deliberating Important Matters」

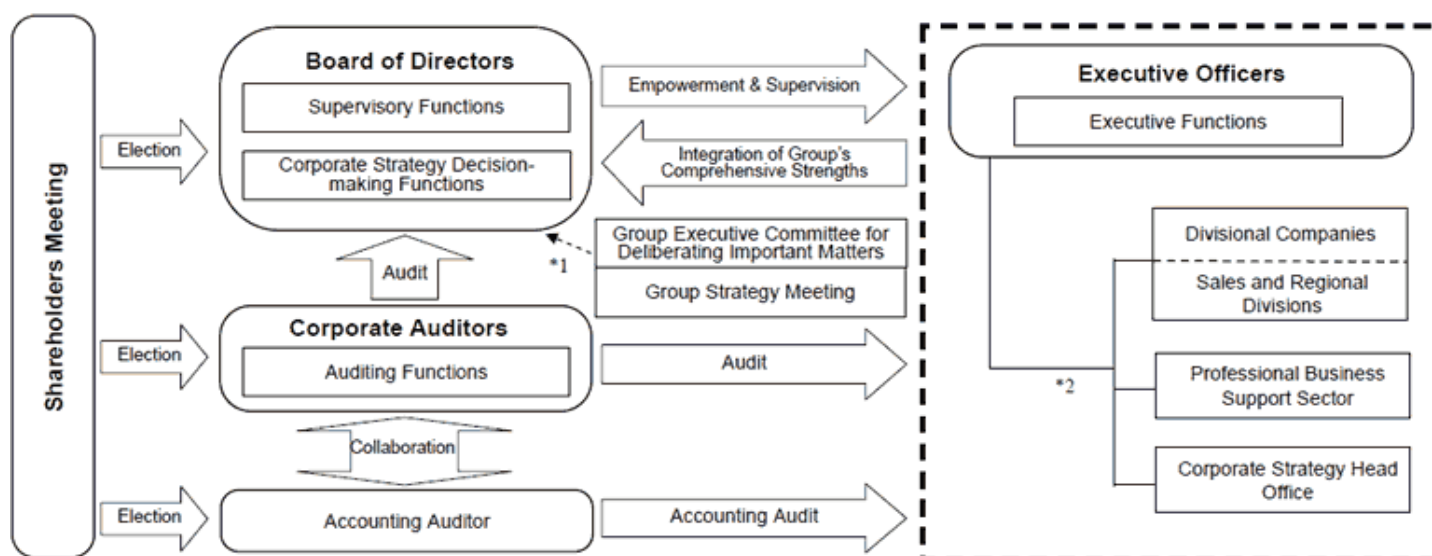
In October 2012, the Company established and has operated the Group Executive Committee for Deliberating Important Matters, where discussions are conducted prior to a meeting of the Board of Directors, with the aim of ensuring productive deliberations at the Board of Directors' meetings. At the Group Executive Committee for Deliberating Important Matters, matters deemed to be important, such as investments over a certain amount and Group-wide management systems and measures, are discussed and approved by the President. This Committee was established by integrating the Group Management Committee, the Approval Meeting and the Investment and Borrowing Committee. The members of the Committee are the President and Executive Officers whose job functions are related to the matters to be discussed. The officers responsible for businesses or job functions related to those being discussed also join the meeting, if necessary.

### 「Group Strategy Meeting」

In July 2012, the Company established the Group Strategy Meeting to discuss the Company's mid- and long-term strategies and certain important issues. The meeting is generally held twice a month. The attendants consist of approximately ten (10) people in managerial positions, including the President and the top management officers of the major businesses (currently, the presidents of the 4 Divisional Companies), called the Group Management Team. The officers of related businesses and functions being discussed also join the meeting, if necessary. By integrating meetings for discussing and sharing information regarding group-wide issues into the Group Strategy Meeting, the Company is capable of prioritizing and promptly discussing important group-wide issues.

## Corporate Governance Structure

[Functions of the Board of Directors, Executive Officers and Corporate Auditors, etc.]



\*1Complementing a decision-making in the Board of Directors Meeting.

\*2Including the affiliate business divisions and companies (Japan and overseas),etc.

## Basic Policy on Internal Control Systems and Status of the Development of the System

The Company's Board of Directors has determined the Company's basic policy regarding the development of internal control systems, as outlined below. It was decided at the Board of Directors' meeting held on July 31, 2012 that this basic policy should be retained. The details are as follows:

### «Basic Policy Regarding Development of Internal Control Systems»

#### (a) System for ensuring legitimacy of the execution of duties by Directors

The Company shall ensure legitimacy of the execution of duties by Directors by developing effective corporate governance and monitoring systems, as well as increasing awareness about compliance.

#### (b) System for retention and management of information on the execution of duties by Directors

The Company shall retain and manage information on the execution of duties by Directors in accordance with laws and ordinances and the internal regulations of the Company.

#### (c) Regulations and other systems for risk management

The Company shall establish regulations for risk management, collect and assess information on risks in an integrated and comprehensive fashion in order to identify material risks, take countermeasures that match the materiality of each risk and seek continuous improvements through monitoring the progress of such countermeasures.

#### (d) System for ensuring efficiency of the execution of duties by Directors

The Company shall ensure efficiency of the execution of duties by Directors by clarifying business goals through business plans and other measures, and examining the status of achievement of such goals, while seeking to expedite decision-making.

#### (e) System for ensuring legitimacy of the execution of duties by employees

The Company shall seek to increase awareness of compliance by employees by clarifying the Company's policy regarding compliance. The Company shall also ensure legitimacy of the execution of duties by employees by developing effective monitoring systems.

#### (f) Matters concerning employees who assist Corporate Auditors in auditing, and matters concerning independence of such employees from Directors

The Company shall establish an organization independent from Directors and maintain a staff for Corporate Auditors in order to enhance the effectiveness of audits by Corporate Auditors and facilitate the effective performance of audits.

#### (g) System for making reports to Corporate Auditors

The Company shall ensure opportunities and a system by which Directors and employees, etc. can make reports to Corporate Auditors.

#### (h) System for ensuring effectiveness of audits by Corporate Auditors

The Company shall develop a system in which effective audits may be executed in accordance with the audit plan established by Corporate Auditors each year.

#### (i) System for ensuring the properness of operations of the Group

The Company shall ensure that the Group companies follow the management policy and management philosophy of the Company and the basic policy in (a) through (h) above, in order to ensure the proper execution of businesses for the Group as a whole, while at the same time respecting the Group companies' autonomous management.

### «Status of Development»

#### (a) System for ensuring legitimacy of the execution of duties by Directors

The Company established internal regulations such as the Panasonic Code of Conduct, which provides specific guidelines for the implementation of management philosophy, the Code of Ethics for Directors and Executive Officers, and other internal rules. The Company also delegates responsibility relating to execution of business to Executive Officers, pursuant to resolutions of the Board of Directors. The Company also realigned the role and structure of the Board of Directors to concentrate on corporate strategies and the supervision of business domain companies and under such system the responsibility of Directors is clarified. Moreover, audits are conducted by Corporate Auditors and the Board of Corporate Auditors. The Company also has a management committee and a non-statutory full-time senior auditor at each of business domain companies, etc. corresponding to the Board of Directors and the Corporate Auditors at the Company, respectively.

**(b)System for retention and management of information on the execution of duties by Directors**

The minutes of meetings of the Board of Directors are recorded for each meeting of the Board of Directors and retained permanently by the Secretariat of the Board of Directors. The records of final decisions by the President are also retained permanently by the department in charge.

**(c)Regulations and other systems for risk management**

Based on Basic Risk Management Regulations, the Company identifies material risks by collecting and assessing information on risks in an integrated and comprehensive fashion through the Global and Group (G&G) Risk Management Committee and takes countermeasures that match the materiality of each risk.

**(d)System for ensuring efficiency of the execution of duties by Directors**

The Company expedites decision-making through the Group Executive Committee for Deliberating Important Matters, the operation of the approval procedures of material matters, clear separation of roles for Directors and Executive Officers, the bold transfer of authority to each of business domain companies and the implementation of an IT system that ensures the rapid and accurate collection and transmission of vital management information. Also, the Company established the midterm management plan, the business plan and other measures, and planned and implemented the measures by confirming and examining the status of achievement at the time of financial settlement of monthly accounts.

**(e)System for ensuring legitimacy of the execution of duties by employees**

The Company makes efforts to detect fraudulent acts at an early stage through performing operational and internal control audits, operating the corporate whistleblower hotline and other measures, as well as establishing internal rules such as the Panasonic Code of Conduct and conducting various activities including the operations of the corporate compliance committee. Also regarding to antisocial forces, the Company thoroughly prevents any relationships with antisocial forces by assigning persons-in-charge for preventing undue claims at the department overseeing measures against antisocial forces.

**(f)Matters concerning employees who assist Corporate Auditors in auditing and matters concerning independence of such employees from Directors**

The Company established the Corporate Auditor's Office to which the full-time staff for Corporate Auditors belong, under the direct control of the Board of Corporate Auditors, which is separate from other executive departments.

**(g)System for making reports to Corporate Auditors**

Directors and employees, etc. make reports on business operations and problems to Corporate Auditors at regular meetings held by Corporate Auditors or at other important meetings by requesting Corporate Auditors to attend, as necessary. The Company also established a system by which employees, etc. can report directly to the Board of Corporate Auditors about concerns in regards to accounting or auditing irregularities.

**(h)System for ensuring effectiveness of audits by Corporate Auditors**

The Company has a non-statutory full-time senior auditor at each of business domain companies, etc. who assists Corporate Auditors in auditing compliance status. The Company also established and operates the Panasonic Group Auditor Meetings chaired by the Senior Corporate Auditors in order to enhance collaboration among the Company's Corporate Auditors, the non-statutory full-time senior auditors of business domain companies, etc. and the Corporate Auditors of the Company's main subsidiaries. Moreover, each department has been cooperating to enhance the effectiveness of audits by Corporate Auditors through each department's collaboration in visiting audits of business offices inside and outside Japan by Corporate Auditors and through the Internal Auditing Group's reports to Corporate Auditors at appropriate times.

**(i)System for ensuring properness of operations of the Group**

The Company established the Panasonic Code of Conduct, and it also exercises the rights of shareholders of the Group companies and dispatches Directors and Corporate Auditors to the Group companies. In addition, the Company established the approval procedures for final decisions on material matters, and established the function-related regulations across the Group. Moreover, the Internal Auditing Group conducts periodic audits on the Company's business and internal control audits. Steps are also taken to share business goals through the announcement of the business policies and the distribution of appropriate information by internal notices. In addition, the Company oversees the activities of publicly listed subsidiaries to ensure that they engage in the appropriate implementation and management of these systems. Furthermore, the framework described above ensures that operations are proper, enabling the Group to establish the internal controls necessary for financial reporting based on the Sarbanes-Oxley Act and Financial Instruments and Exchange Act.

Notes:

1. "Group companies" means subsidiaries as stipulated in the Company Law of Japan.
2. The Company reorganized the business domain companies to the 4 Divisional Companies as of April 1, 2013.



## The status of the Company's internal system concerning timely disclosure of corporate information

Under its management philosophy, "A company is a public entity of society," the Company has been committed to highly transparent business activities and endeavored to fulfill its accountability to its stakeholders. The Company's basic policy concerning information disclosure is set forth in the "Panasonic Code of Conduct," which prescribes specific items to be complied with in order to put the Group's business policy into practice, and is published on the Company's website and elsewhere. The Company's basic policy concerning information disclosure is to provide the Company's fair and accurate financial information and corporate information, including management policies, business activities and corporate social responsibility (CSR) activities, in a timely, appropriate and easily understandable manner.

In accordance with this basic policy, important matters concerning the management of the Group are resolved or reported at meetings of the Board of Directors pursuant to the Regulations of the Board of Directors. These important matters and other matters, which are required to be disclosed under relevant laws and ordinances and the rules of financial instruments exchanges or any other regulations in Japan and overseas, are timely and accurately reported from each relevant department having internal information to the department that handles relevant information under the monitoring of the Director in charge of Accounting and Finance so that important information is gathered.

Moreover, if any of the matters which are required to be disclosed under relevant laws and ordinances and the rules of financial instruments exchanges or any other regulations in Japan and overseas occur with respect to the Company's business divisions including subsidiaries, such matter is required to be immediately reported to the "Corporate Accounting Group" or the "Corporate Finance & IR Group" of the head office, depending upon the nature thereof; thus, the Company has established a system whereby these matters can be identified within the Company.

With respect to the information gathered or identified, the Company determines the necessity of disclosure thereof in accordance with relevant laws and ordinances and the rules of financial instruments exchanges or any other regulations in Japan and overseas, and makes efforts to conduct the disclosure at the time that the organization, which substantially decides on the execution of business of the Company, makes a resolution or determination, or the Company becomes aware of the occurrence of the relevant matter. In addition, the Company endeavors to confirm the details and expressions of the disclosure with the relevant departments within the Company and outside legal counsel to ensure the accuracy, fairness and adequacy of disclosure.

Moreover, the Company has established disclosure control procedures under Section 302 of the U.S. Public Company Accounting Reform and Investor Protection Act from fiscal 2003. In the process of preparation and confirmation of annual securities reports, quarterly reports and annual reports, the Disclosure Committee, which is comprised of managers from principal departments that handle relevant information, confirms the validity of the content of the descriptions and the appropriateness of the procedures concerning the disclosure under the monitoring of the President and the Director in charge of Accounting and Finance, who are responsible for establishing, maintaining and ensuring the effectiveness of the internal control and disclosure control of the Company. The chairman of the Disclosure Committee is appointed by the President and the Director in charge of Accounting and Finance, and the members of the Disclosure Committee are appointed by the chairman of the Disclosure Committee. The Disclosure Committee also develops, maintains, improves and evaluates the internal control procedures concerning disclosure.

### Note:

The Company notified to the New York Stock Exchange ("NYSE") to apply for voluntary delisting of its American Depositary Shares ("ADSs") on April 1, 2013. Then the Company filed on April 11, 2013 of a Form 25 with the SEC for delisting from the NYSE and SEC deregistration and its delisting became effective on April 22, 2013. In addition, the Company has filed a Form 15F with the SEC on April 22, 2013 to terminate the Company's reporting obligations under the Securities Exchange Act of 1934 (the "Exchange Act"). The deregistration will become effective on July 10, 2013, 90 days after the filing of Form 25 with the SEC. Panasonic's reporting obligations under the Exchange Act were suspended by the filing of Form 15F with the SEC and will be terminated on July 21, 2013, 90 days after its filing. The anticipated effective dates may be delayed if the SEC objects or requests an extended review or for other reasons.

## Internal Control Over Financial Reporting

The Company has documented its actual status of the internal control system, with coordination provided by the Internal Auditing Group, in order to ensure reliability in financial reporting of the Panasonic Group including its subsidiaries, ranging from the control infrastructure to actual internal control activities. Specifically, the Company has reinforced its internal controls by implementing self-checks and self-assessment programs at each of the Divisional Companies and business divisions, etc. Then, Internal Auditing Managers of the Divisional Companies appointed by the Company at each of the Divisional Companies, etc. conduct audits. The Corporate Internal Auditing Group supervises these activities in order to confirm the effectiveness of each company's financial reporting. With the aim of further enhancing the Group's internal control system, in fiscal 2013 Panasonic had approximately 400 personnel assigned to conduct internal audits in the Internal Auditing Group.

## Amount of compensation for Directors and Corporate Auditors

With respect to the remuneration for Directors and Corporate Auditors, the maximum total amounts of remuneration for all Directors and Corporate Auditors of the Company are respectively determined by a resolution at a general meeting of shareholders. The remuneration amount for each Director is determined by the Company's Representative Directors who have been delegated by the Board of Directors to make such

determination based on a certain standard of the Company, and the remuneration amount for each Corporate Auditor is determined upon discussions amongst the Corporate Auditors.

The amounts of remuneration and bonuses of Directors are linked to individual performance based on sales, pre-tax income, CCM and free cash flow, etc. By implementing this performance evaluation criteria based on shareholder interests, the Company intends to promote continuous growth and enhance profitability on a long-term basis for the Group as a whole.

Note:

CCM (Capital Cost Management) is an indicator of business management created by the Company to evaluate return on capital.

Classification	Number of persons	Amounts (million yen)	
			Monthly salary
Directors (other than Outside Directors)	21	835	835
Corporate Auditors (other than Outside Corporate Auditors)	3	78	78
Outside Directors	2	27	27
Outside Corporate Auditors	3	41	41

## Status of accounting audit

Panasonic Corporation has an auditing agreement with KPMG AZSA LLC for this company to conduct the accounting audit of Panasonic Corporation. The followings are accountants who conducted the accounting audit Panasonic Corporation. The number of years of continued audits is seven years or less.

CPA having executed accounting audit works	Audit corporation to which CPA belongs
Tetsuzo Hamajima	KPMG AZSA LLC
Takashi Kondo	KPMG AZSA LLC
Sungjung Hong	KPMG AZSA LLC

Working with to assist the above accountants in conducting audit of Panasonic Corporation were 131 certified public accountants and 106 other people.

## Outside Directors and Outside Corporate Auditors

The Company elects three (3) Outside Directors and three (3) Outside Corporate Auditors.

Mr. Ikuo Uno, an Outside Director of the Company, is an executive advisor to the Board of Nippon Life Insurance Company. Nippon Life Insurance Company is one of the major shareholders of Panasonic, but do not have any other noteworthy relationships with the Company. Mr. Masayuki Oku, an Outside Director of the Company, is Chairman, Board of Directors of Sumitomo Mitsui Financial Group, Inc. Sumitomo Mitsui Banking Corporation which is a subsidiary of Sumitomo Mitsui Financial Group, Inc. is one of the major shareholders of Panasonic, but do not have any other noteworthy relationships with the Company. Mr. Yasuo Yoshino, an Outside Corporate Auditor of the Company, is advisory of Sumitomo Life Insurance Company. Sumitomo Life Insurance Company is one of the major shareholders of Panasonic, but do not have any other noteworthy relationships with the Company.

For three (3) Outside Directors, the Company makes its decisions concerning the independence of Outside Directors based on the policy to the effect that the Outside Directors do not have any conflict of interest in light of relationships between the Company and the Outside Directors or other entities or organizations to which the Outside Directors belong and therefore maintain independence and may enhance and strengthen the effectiveness of the monitoring performed by the Board of Directors regarding the execution of business by Directors from an objective and neutral standpoint. For three (3) Outside Corporate Auditors, the Company makes its decisions concerning the independence of Outside Corporate Auditors based on the policy to the effect that the Outside Corporate Auditors do not have any conflict of interest in light of relationships between the Company and the Outside Corporate Auditors or other entities or organizations to which the Outside Corporate

Auditors belong and therefore maintain independence and enhance and strengthen the effectiveness of the audits performed by Corporate Auditors regarding the execution of business by Directors, from an objective and neutral standpoint.

Outside Directors directly or indirectly cooperate with the internal audit, audit by Corporate Auditors and accounting audit, receive reports from the Internal Auditing Group and conduct an effective monitoring through reports on financial results at meetings of the Board of Directors and through reviews of the basic policy regarding the development of the internal control systems and other methods.

Outside Corporate Auditors directly or indirectly cooperate with the internal audit, audit by Corporate Auditors and accounting audit, receive reports from the Internal Auditing Group and conduct an effective monitoring through reports on financial results at meetings of the Board of Directors, through reviews of the basic policy regarding the development of internal control systems and through exchanges of opinions and information at meetings of the Board of Corporate Auditors and other methods.

## **Contract between the Company and Outside Directors / Outside Corporate Auditors under Paragraph 1 of Article 427 of the Company Law**

The Company has entered into liability limitation agreements with all Outside Directors and Outside Corporate Auditors, respectively, which limit the amount of their liability under Article 423, Paragraph 1 of the Company Law to the aggregate of the amounts specified in Article 425, Paragraph 1 of the Company Law, if they perform their duties in good faith and without significant negligence.

## **Matters to be resolved at general meetings of shareholders that can also be resolved by the Board of Directors**

The Company stipulates in its Articles of Incorporation that unless otherwise provided by law, the Company may determine, by a resolution of the Board of Directors, a distribution of surplus or any other matters set forth in each item of Article 459, Paragraph 1 of the Company Law. This is to enable the Company to more flexibly distribute profits to shareholders based on its consolidated business performance and to repurchase and cancel its own stock under its basic policy for providing return to shareholders

The Company, pursuant to Article 426, Paragraph 1 of the Company Law, stipulates in its Articles of Incorporation that it may, by a resolution of the Board of Directors, exempt a Director (including a former Director) and a Corporate Auditor (including a former Corporate Auditor) from being held liable for his/her actions as set forth in Article 423, Paragraph 1 of the Company Law to the extent permitted by applicable laws and ordinances, to enable the Directors and Corporate Auditors to perform their duties in a satisfactory manner.

## **Requirements for the adoption of resolutions for the election of Directors**

The Company stipulates in its Articles of Incorporation that the presence of shareholders representing one-third or more of the voting rights held by the total shareholders entitled to exercise their voting rights and a majority of the votes held by those shareholders are required for the adoption of resolutions necessary to approve the election of Directors.

## **Requirements for the adoption of special resolutions of general meetings of shareholders**

The Company stipulates in its Articles of Incorporation that the presence of shareholders representing one-third or more of the voting rights held by the total shareholders entitled to exercise their voting rights and two-thirds of the votes held by those shareholders are required for the adoption of special resolutions of general meetings of shareholders which are stipulated in Article 309, Paragraph 2 of the Company Law. By relaxing the requirements for a quorum for special resolutions of general meetings of shareholders, deliberations for those resolutions can be made in a secure manner.

## **Information on shareholdings**

### **(a)Investment securities held for purposes other than pure investment**

Number of stock names: 177

Total amount recorded in the balance sheet of the Company: 87,806 million yen

### **(b)Stock name, number of shares, amount recorded in the balance sheet, and purpose of holding regarding investment securities held for purposes other than pure investment**

(As of March 31, 2012)

Specified investment securities

Stock name	Number of shares (shares)	Balance sheet amount (Millions of yen)	Purpose of holding
Toyota Motor Corporation	27,392,905	97,793	Maintaining and enhancing of relationship with issuer and business transactions
Honda Motor Co., Ltd.	11,272,900	35,453	Maintaining and enhancing of relationship with issuer and business transactions
Daikin Industries, Ltd.	7,500,000	16,898	Maintaining and enhancing of relationship with issuer and business transactions
TDK Corporation	3,124,808	14,655	Maintaining and enhancing of relationship with issuer and business transactions
Nippon Steel Corporation	35,985,000	8,169	Maintaining and enhancing of relationship with issuer and business transactions
KOITO MANUFACTURING CO., LTD.	4,280,250	5,731	Maintaining and enhancing of relationship with issuer and business transactions
Tesla Motors, Inc.	1,418,573	4,342	Maintaining and enhancing of relationship with issuer and business transactions
Tokyo Broadcasting System Holdings, Inc.	3,083,180	3,805	Maintaining and enhancing of relationship with issuer and business transactions
Sumitomo Metal Industries, Ltd.	19,260,000	3,216	Maintaining and enhancing of relationship with issuer and business transactions
NIPPON KANZAI Co., Ltd.	1,950,000	2,915	Maintaining and enhancing of relationship with issuer and business transactions

Regarded as holding securities

Stock name	Number of shares (shares)	Balance sheet amount (Millions of yen)	Purpose of holding
IBIDEN CO., LTD.	1,700,000	3,599	Have a right to exercise of voting rights *
Shin-Etsu Chemical Co., Ltd.	600,000	2,868	Have a right to exercise of voting rights *
Sumitomo Mitsui Financial Group, Inc.	510,000	1,389	Have a right to exercise of voting rights *

\* These securities described were acquired at the merger of Panasonic Electric Works Co., Ltd.

(As of March 31, 2013)

Specified investment securities

Stock name	Number of shares (shares)	Balance sheet amount (Millions of yen)	Purpose of holding
Toyota Motor Corporation	9,000,000	43,740	Maintaining and enhancing of relationship with issuer and business transactions
Tesla Motors, Inc.	1,418,573	5,055	Maintaining and enhancing of relationship with issuer and business transactions
Tokyo Broadcasting System Holdings, Inc.	3,083,180	4,344	Maintaining and enhancing of relationship with issuer and business transactions
Honda Motor Co., Ltd.	1,000,000	3,555	Maintaining and enhancing of relationship with issuer and business transactions
Daiwa House Industry Co., Ltd.	1,530,000	2,785	Maintaining and enhancing of relationship with issuer and business transactions
WOWOW INC.	11,004	2,722	Maintaining and enhancing of relationship with issuer and business transactions
Toray Industries, Inc.	4,214,000	2,680	Maintaining and enhancing of relationship with issuer and business transactions
Sekisui House, Ltd.	1,112,071	1,422	Maintaining and enhancing of relationship with issuer and business transactions
Mazda Motor Corporation	3,495,030	982	Maintaining and enhancing of relationship with issuer and business transactions
Joshin Denki Co., Ltd.	1,085,004	974	Maintaining and enhancing of relationship with issuer and business transactions

(c)Equity securities for pure investment

Not applicable.

## Audit Fees

### Fees to Certified Public Accountants

Category	Fiscal year ended March 31, 2012		Fiscal year ended March 31, 2013	
	Fees for audit services (Millions of yen)	Fees for non-audit services (Millions of yen)	Fees for audit services (Millions of yen)	Fees for non-audit services (Millions of yen)

<b>The Company (Parent-alone)</b>	581	0	729	—
<b>Consolidated subsidiaries</b>	1,166	—	679	3
<b>Total</b>	1,747	0	1,408	3

### Other fees

In addition to the above, audit fees paid by the Company and its consolidated subsidiaries to the Company's accounting auditor, KPMG AZSA LLC Group (including KPMG and its group firms which belong to the same network as KPMG AZSA LLC), were 2,093 million yen for the fiscal year ended March 31, 2012, and 2,101 million yen for the fiscal year ended March 31, 2013, respectively. These fees are mainly paid for audit services. Some consolidated subsidiaries paid audit fees to other accounting auditors which do not belong to the same network as KPMG AZSA LLC Group. These fees are mainly paid for audit services.

### Descriptions of non-audit services to the Company

Non-audit services to the Company in the fiscal year ended March 31, 2012 include assurance services over the reports which the Company makes optionally, and the non-audit services in the fiscal year ended March 31, 2013 include agreed-upon procedures to which the fee is charged.

### Policy on determination of audit fees

For determining the amount of audit fees, the Company considers matters that include the number of days of audit, taking into consideration of the size of the Company, the scope and characteristics of the audit, etc.

# Risk Management

## Fundamental Stance

Panasonic promotes company-wide risk management activities that cover operations around the world. The aim is to take preemptive actions to eliminate "sources of failure," which means anything that could impede the accomplishment of business goals. Underpinning this risk management are principles of Panasonic founder Konosuke Matsushita: "Worry earlier and enjoy later than people," "Cause of failures lie within oneself," "There is always a "sign" for everything," and "Small things can create big problems; you must be alert for signs of change and act accordingly."

At Panasonic, risk management functions in tandem with the establishment and execution of management strategies. Combining these two functions better enables us to accomplish business objectives and increase our corporate value. Disclosing risk information in public in an appropriate way and improving the transparency of our activities, as well as reducing risk by taking preemptive countermeasures gives customers and other stakeholders as well as communities and the public greater confidence in the Panasonic organization.

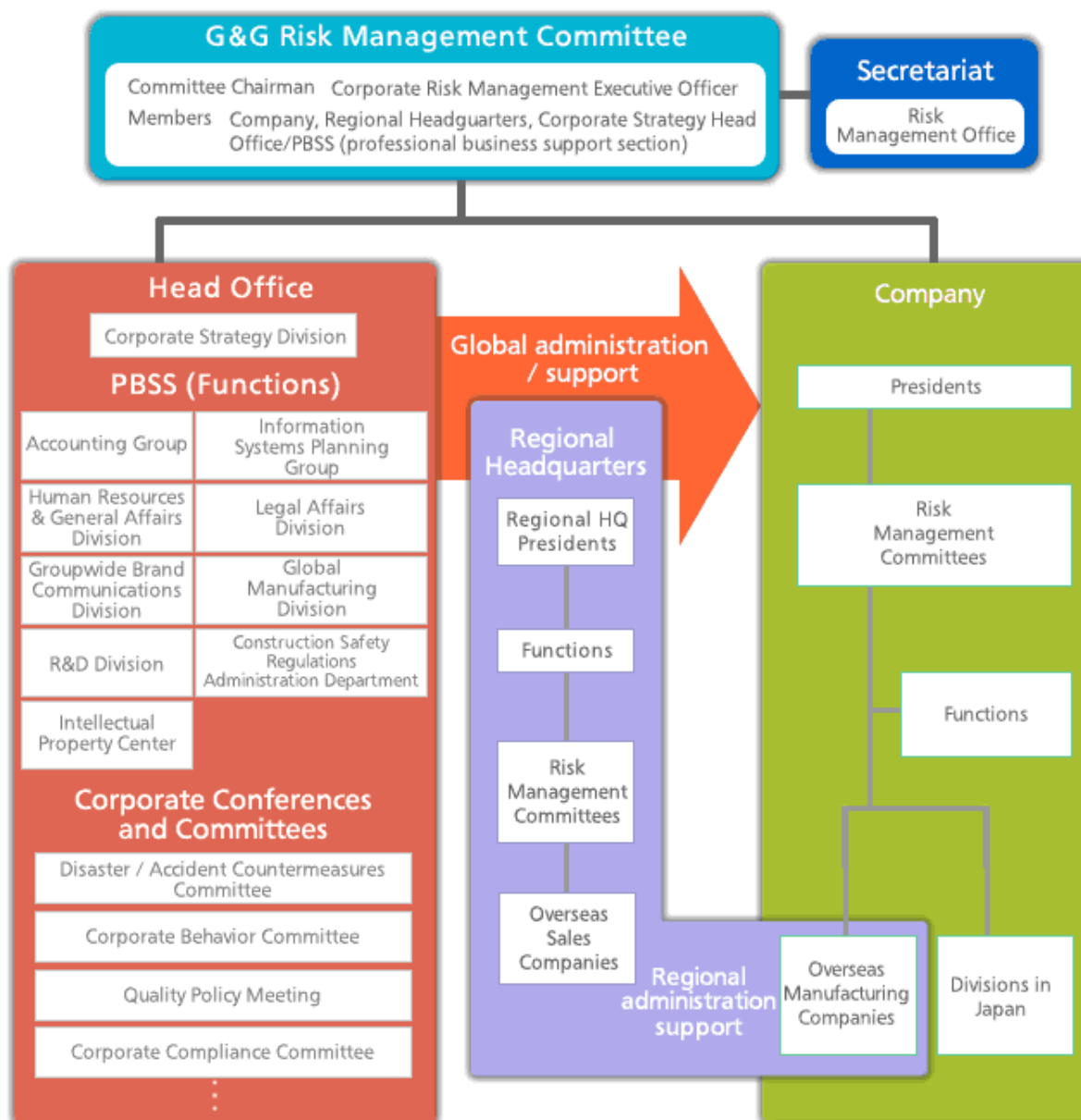
[Role of Risk Management in Business Management]



## Promotion Organization

Panasonic has a Global & Group (G&G) Risk Management Committee since April 2005 to promote group wide risk management that is chaired by the Corporate Risk Management Executive Officer and includes Company CROs (Chief Risk Officer), Regional Headquarters, and managers from Corporate Strategy Head Office and Functions, and the Risk Management Office serves as its secretariat. In addition, the Committee coordinates its efforts with other committees associated with risk management. This provides a basis to promote measures throughout the company to deal with risks and to give assistance to Companies and Regional Headquarters. Risk Management Committees are also established by these Companies and Regional Headquarters. Collectively, these units create a global risk management system that spans the entire Panasonic Group.

[Panasonic Global and Group Risk Management Promotion Framework]

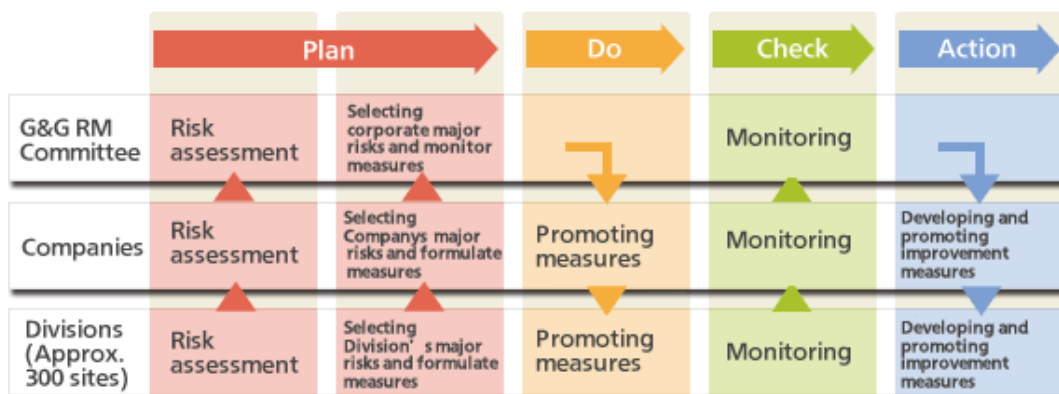


## Basic Framework

Panasonic has three levels of management cycles for risk management: the G&G Risk Management Committee, companies, and business divisions. We conduct risk assessments once a year in an integrated and comprehensive manner--risks that could affect business management are identified and then evaluated in terms of a single, global set of standards incorporating the potential impact on business operations, probability of risk occurring and other factors, after which the priority of countermeasures is determined. In addition, all companies and affiliated business divisions perform the same management cycles for risk management and identify major company risks for their respective activities. The G&G Risk Management Committee is responsible for identifying Corporate Major Risks that could affect the Panasonic Group based on these assessments, and also monitors progress made concerning countermeasures and other activities targeting major risks, especially focusing on those of the companies. Taking this approach allows reinforcing and improving of risk containment measures for the entire Panasonic Group.

[Basic Framework for Risk Management]





#### Corporate Major Risks for FY2014

- Natural disaster (earthquakes, tsunamis, etc.)
- Quality problem (safety accidents)
- Cartels

#### Corporate Major Risks for FY2013

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

## Risk Factors

Once a year, Panasonic implements a Groupwide risk assessment survey to identify potential risks in an integrated and comprehensive manner. By identifying, evaluating and prioritizing these risks, Panasonic specifies risks at the Corporate Strategy Head Office, Professional Business Support Sector, Divisional Companies, Business Divisions and Group affiliates, takes countermeasures that correspond to the materiality of each risk, and seeks continuous improvements through the monitoring of the progress of such countermeasures. Primarily because of the business areas and geographical areas where it operates, and the highly competitive nature of the industry to which it belongs, Panasonic is exposed to a variety of risks and uncertainties in conducting its businesses, including, but not limited to, the following. These risks may adversely affect Panasonic's business, operating results and financial condition.

This section includes forward-looking statements and future expectations as of June 27, 2013.

### 1. Risks Related to Economic Conditions

#### Continued or further weakness in Japanese and global economies may cause reduced demand for Panasonic's products

Demand for Panasonic's products and services may be affected by general economic trends in the countries or regions in which Panasonic's products and services are sold. Economic downturns and resulting declines in demand in Panasonic's major markets worldwide may thus adversely affect the Company's business, operating results and financial condition. For fiscal 2014, ending March 31, 2014, although U.S. economy is expected to be steady, the Company anticipates that uncertainty of the business environment will continue due to weak economic condition in Europe and sluggish market in certain emerging countries as well as ever-intensified global competition. Panasonic may incur increased costs for business restructuring that exceeds Panasonic's expectations in order to cope with the business environment. If global market conditions worsen beyond expectations, the business environment of Panasonic may deteriorate more than currently anticipated, which may adversely affect the Company's business, operating results and financial condition.

#### Currency exchange rate fluctuations may adversely affect Panasonic's operating results

Foreign exchange rate fluctuations may adversely affect Panasonic's business, operating results and financial condition, because costs and prices of its products and services and certain other transactions that are denominated in a foreign currency are affected by foreign exchange rate changes. In addition, foreign exchange rate changes can also affect the yen value of Panasonic's investments in overseas assets and liabilities because Panasonic's consolidated financial statements are presented in Japanese yen. Generally, an appreciation of the yen against other major currencies such as the U.S. dollar and the euro may adversely affect Panasonic's operating results. Meanwhile, a depreciation of the yen against the aforementioned major currencies may have a favorable impact on Panasonic's operating results. In fiscal 2013, the extreme

appreciation of the yen against other major currencies was put brakes and the effect to Panasonic' s operating results was limited. However the resurgence of the yen may adversely affect the Company' s business, operating results and financial condition.

**Interest rate fluctuations may adversely affect Panasonic' s financial condition, etc.**

Panasonic is exposed to interest rate fluctuation risks which may affect the Company' s operational costs, interest expenses, interest income and the value of financial assets and liabilities. Accordingly, interest rate fluctuations may adversely affect the Company' s business, operating results and financial condition.

**Continuation or deterioration of financial market instability may adversely affect Panasonic' s ability to raise funds or may increase the cost of fund raising**

Panasonic raises funds for its business through methods such as borrowing from financial institutions and issuance of bonds and commercial paper. Where, among other events, financial market continues to be instable or deteriorates, financial institutions reduce lending to Panasonic, or rating agencies further downgrade Panasonic' s credit ratings, Panasonic may not be able to raise funds in the time and amount necessary for Panasonic, or under conditions which Panasonic deems appropriate, and Panasonic may incur additional costs of raising funds, which may adversely affect the Company' s business, operating results and financial condition.

**Decreases in the value of Japanese stocks may adversely affect Panasonic' s financial results**

Panasonic holds mostly Japanese stocks as part of its investment securities. Decreases in the value of Japanese stocks may cause losses due to decreases in the valuation of investment securities, thereby adversely affecting Panasonic' s operating results and financial condition. The decrease in the value of Japanese stocks may also reduce stockholders' equity on the balance sheet, as unrealized holding gains (losses) of available-for-sale securities are included as part of accumulated other comprehensive income (loss).

## **2. Risks Related to Panasonic' s Business**

**Competition in the industry may adversely affect Panasonic' s ability to maintain profitability**

Panasonic develops, produces and sells a broad range of products and services and therefore faces many different types of competitors, from large international companies to relatively small, rapidly growing, and highly specialized organizations. Panasonic may choose not to fund or invest in one or more of its businesses to the same degree as its competitors in those businesses do, or it may not be able to do so in a timely manner or even at all. These competitors may have greater financial strength, technological capability, and marketing resources than Panasonic in the respective businesses in which they compete.

**Declines in product prices may adversely affect Panasonic' s financial condition**

Panasonic' s business is subject to intense price competition worldwide, which makes it difficult for the Company to determine product prices and maintain adequate profits. Such intensified price competition may adversely affect Panasonic' s profits, especially in terms of possible decreases in demand. Amid accelerating changes in the structure of markets, such as a demand shift to emerging markets and lower-priced products, and expansion of multifunctional smartphones, Panasonic' s product prices in digital electronics and other business areas may continue to decline.

**Panasonic' s business is, and will continue to be, subject to risks generally associated with international business operations**

One of Panasonic' s business strategies is business expansion in overseas markets. In many of these markets, Panasonic may face risks generally associated with international manufacturing and other business operations, such as political instability, including war, civil war, conflict, riot and terrorist attacks, cultural and religious differences and labor relations, as well as economic uncertainty and foreign currency exchange risks. Panasonic may also face barriers in commercial and business customs in foreign countries, including difficulties in timely collection of accounts receivable or in building and expanding relationships with customers, subcontractors or parts suppliers. Panasonic may also experience various political, legal or other restrictions in investment, trade, manufacturing, labor or other aspects of operations, including restrictions on foreign investment or the repatriation of profits on invested capital, nationalization of local industry, changes in export or import restrictions or foreign exchange controls, and changes in the tax system or the rate of taxation in countries where Panasonic operates businesses. With respect to products exported overseas, tariffs, other barriers or shipping costs may make Panasonic' s products less competitive in terms of price. Expanding its overseas business may require significant investments long before Panasonic realizes returns on such investments, and increased investments may result in expenses growing at a faster rate than revenues.

**Panasonic may not be able to keep pace with technological changes and develop new products or services in a timely manner to remain competitive**

Panasonic may fail to introduce new products or services in response to technological changes in a timely manner. Some of Panasonic's core businesses in both BtoC (business-to-consumer) and BtoB (business-to-business) areas are concentrated in industries where technological innovation is the central competitive factor. Panasonic continuously faces the challenge of developing and introducing viable and innovative new products. Panasonic must predict with reasonable accuracy both future demand and new technologies that will be available to meet such demand. If Panasonic fails to do so, it will not be able to compete effectively in new markets.

**Panasonic may not be able to develop product formats that can prevail as de facto standards**

Panasonic has been forming alliances and partnerships with other major manufacturers to strengthen technologies and the development of product formats, such as next-generation home and mobile networking products, data storage devices, and software systems. Despite these efforts, Panasonic's competitors may succeed in developing de facto standards for future products before Panasonic can. In such cases, the Company's competitive position, business, operating results and financial condition could be adversely affected.

**Panasonic may not be able to successfully recruit and retain skilled employees, particularly scientific, technical and management professionals**

Panasonic's future success depends largely on its ability to attract and retain certain key personnel, including professionals in the fields of research, development, technology and management. However, the number of qualified personnel is limited, and the competition for attracting and retaining these employees is intense. Because of this intense competition for skilled employees, Panasonic may be unable to retain its existing personnel or attract additional qualified employees to keep up with future business needs. If this should happen, Panasonic's business, operating results and financial condition could be adversely affected.

**Alliances with, and strategic investments in, third parties, and mergers and acquisitions undertaken by Panasonic, may not produce positive or expected results**

Panasonic develops its businesses by forming alliances or joint ventures with, and making strategic investments in, other companies, including investments in start-up companies. Furthermore, the strategic importance of partnering with third parties is increasing. In some cases, such partnerships are crucial to Panasonic's goal of introducing new products and services, but Panasonic may not be able to successfully collaborate or achieve expected synergies with its partners. Furthermore, Panasonic does not control these partners, who may make decisions regarding their business undertakings with Panasonic that may be contrary to Panasonic's interests. In addition, if these partners change their business strategies, Panasonic may fail to maintain these partnerships. On April 1, 2011, Panasonic made Panasonic Electric Works Co., Ltd. and SANYO Electric Co., Ltd. its wholly-owned subsidiaries through share exchanges, respectively, and restructured its groupwide business organization on January 1, 2012 and April 1, 2013. However, Panasonic may fail to fully achieve the expected results, such as promotion of rapid decision-making and maximization of group synergies.

**Panasonic is dependent on the ability of third parties to deliver parts, components and services in adequate quality and quantity in a timely manner, and at a reasonable price**

Panasonic's manufacturing operations depend on obtaining raw materials, parts and components, equipment and other supplies including services from reliable suppliers at adequate quality and quantity in a timely manner. It may be difficult for Panasonic to substitute one supplier for another, increase the number of suppliers or change one component for another in a timely manner or at all due to the shortage or interruption of supply caused by, among other things, natural disasters, the bankruptcy of suppliers or increased industry demand. This may adversely affect the Panasonic Group's operations. Although Panasonic decides purchase prices by contract, the prices of raw materials, including iron and steel, resin, and non-ferrous metals, and parts and components, may increase due to changes in supply and demand and the inflow of investment funds. Some components are only available from a limited number of suppliers, which also may adversely affect Panasonic's business, operating results and financial condition.

**Panasonic is exposed to the risk that its customers may encounter financial difficulties**

Many of Panasonic's customers purchase products and services from Panasonic on payment terms that do not provide for immediate payment. If customers from whom Panasonic has substantial accounts receivable encounter financial difficulties and are unable to make payments on time, Panasonic's business, operating results and financial condition could be adversely affected.

### 3. Risks Related to Panasonic' s Management Plans

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Panasonic announced a midterm management plan called "Cross-Value Innovation 2015" (CV2015), on March 28, 2013, which runs from fiscal 2014 to fiscal 2016 and implements specific measures to achieve the targets. However, Panasonic may not be successful in realizing the expected benefits because of various external and internal factors such as deterioration of the business environment and increased costs of business restructuring such as additional business reorganization, the impairment of fixed assets and employment adjustment in order to cope with the business environment.

### 4.Risks Related to Legal Restrictions and Litigations

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#### **Panasonic may be subject to product liability or warranty claims that could result in significant direct or indirect costs**

The occurrence of quality problems due to product defects, including safety incidents, in Panasonic products could make Panasonic liable for damages not covered by product and completed operation liability insurance, whereby the Company could incur significant expenses. Due to negative publicity concerning these problems, Panasonic' s business, operating results and financial condition may be adversely affected.

#### **Panasonic may fail to protect its proprietary intellectual properties, or face claims of intellectual property infringement by a third party, and may lose its intellectual property rights on key technologies or be liable for significant damages**

Panasonic' s success depends on its ability to obtain intellectual property rights covering its products and product design. Patents may not be granted or may not be of sufficient scope or force to provide Panasonic with adequate protection or commercial advantage. In addition, effective copyright and trade secret protections may be unavailable or limited in some countries in which Panasonic operates. Competitors or other third parties may also develop technologies that are protected by patents and other intellectual property rights, which make such technologies unavailable or available only on terms unfavorable to Panasonic. The Company obtains licenses for intellectual property rights from other parties; however, such licenses may not be available on acceptable terms or at all, and the terms of such licenses may be modified unfavorably if Panasonic is found to have in the future. Litigation may also be necessary to enforce Panasonic' s intellectual property rights or to defend against intellectual property infringement claims brought against Panasonic by third parties. In such cases, Panasonic may incur significant expenses and management resources in connection with such lawsuits. Furthermore, Panasonic may be prohibited from using certain important technologies or be found liable for damages in cases of admitted violations of intellectual property rights of others.

#### **Changes in accounting standards and tax systems may adversely affect Panasonic' s financial results and condition**

Introduction of new accounting standards or tax systems, or changes thereof, which Panasonic cannot predict, may have a material adverse effect on the Company' s operating results and financial condition. In addition, if tax authorities have different opinions from Panasonic on the Company' s tax declarations, Panasonic may need to make larger tax payments than estimated

#### **Payments or compensation related to environmental regulations or issues may adversely affect Panasonic' s business, operating results and financial condition**

Panasonic is subject to environmental regulations such as those relating to climate change, air pollution, water pollution, hazardous substances, waste materials, product recycling, and soil and groundwater contamination, and may be held responsible for certain related payments or compensation. Furthermore, if these regulations become stricter and an additional duty of eliminating the use of environmentally hazardous materials is imposed, or if the Company determines that it is necessary and appropriate, from the viewpoint of corporate social responsibility, to respond to environmental issues, the payment of penalties for the violation of these regulations or the payment of compensation for consolation to parties affected by such issues may adversely affect Panasonic' s business, operating results and financial condition.

#### **Leaks of confidential information, including personal information, or trade secrets may adversely affect Panasonic' s business**

In the normal course of business, Panasonic holds confidential information mainly about customers regarding credit worthiness and other information, as well as confidential information about companies and other third parties. Such information may be leaked due to an accident or other inevitable cause, and any material leakage of confidential information may result in significant expense for related lawsuits and adversely affect Panasonic' s business and image. Moreover, other than customer information, there is a risk that Panasonic' s trade secrets, such as

technology information, may be leaked due to illegal conduct of external parties, mere negligence or other causes. If such is the case, Panasonic's business, operating results and financial condition may be adversely affected.

**Governmental laws and regulations may limit Panasonic's activities, increase its operating costs or subject it to sanctions and lawsuits**

Panasonic is subject to governmental regulations in Japan and other countries in which it conducts its business, including governmental approvals required for conducting business and investments, laws and regulations governing the telecommunications businesses and electric product safety, national security-related laws and regulations and export/import laws and regulations, as well as commercial, antitrust, patent, product liability, environmental laws and regulations, consumer protection, financial and business taxation laws and regulations, and internal control regulations. If, due to the implementation of stricter laws and regulations and stricter interpretations, Panasonic cannot comply with these laws and regulations from technical and economic perspectives, or Panasonic determines that it will not be economical to continue to comply with them, Panasonic will need to limit its activities in the affected business areas. These laws and regulations could increase Panasonic's operating costs. In addition, in the event that governmental authorities find or determine that Panasonic has violated these laws and regulations, Panasonic could become subject to regulatory sanctions, including monetary penalties, as well as criminal sanctions or civil lawsuits for damages, and could also suffer reputational harm.

**5. Risks Related to Disasters or Unpredictable Events**

**Panasonic's facilities and information systems could be damaged as a result of disasters or unpredictable events, which could have an adverse effect on its business operations**

Panasonic expands its manufacturing sales, and research and development activities globally and has facilities all over the world. If major disasters, such as earthquakes, tsunamis, fires, floods, including those caused by climate change, wars, terrorist attacks, computer viruses or other events occur, or Panasonic's information system or communications network breaks down or operates improperly as a result of such events, Panasonic's facilities and other assets may be seriously damaged, or the Company may have to stop or delay production and shipment. Panasonic may incur expenses relating to such damages. In addition, if an infectious disease, such as a new highly-pathogenic flu strain, becomes prevalent throughout the world, Panasonic's manufacturing and sales may be materially disrupted. In addition, in the case where these natural disasters or other unpredictable events disrupt the supply chain of Panasonic including suppliers of parts or components and manufacturers to which Panasonic sells its products, the production and sales activities of Panasonic may be adversely and significantly affected due to the shortage or interruption in the supply of parts or components from such suppliers, or suspension of or decline in production activities of such manufacturers. Furthermore, if limitations on electricity use or rolling blackouts are implemented due to the shortage in the electricity supply caused by the closedown of certain nuclear power stations in the wake of the accidents at the Fukushima Daiichi Nuclear Power Station, the production at certain of Panasonic's manufacturing plants in Japan may decline or be suspended. The rise in electricity costs may be leading to an increase in procurement cost for electricity. The production and sales activities of Panasonic may be adversely and significantly affected by the aforementioned matters

**6. Other Risks**

**External economic conditions may adversely affect Panasonic's pension plans**

Panasonic has contributory, funded benefit pension plans covering substantially all employees in Japan who meet eligibility requirements. A decline in interest rates may cause a decrease in the discount rate on benefit obligations. A decrease in the value of stocks may also affect the return on plan assets. As a result, the actuarial loss may increase, leading to an increase in future net periodic benefit costs of these pension plans.

**Some long-lived assets may not produce adequate returns**

Panasonic has many long-lived assets, such as property, plant and equipment, and goodwill, that generate returns. The Company periodically reviews the recorded value of its long-lived assets to determine if the fair value will be sufficient to support the asset book values. If these long-lived assets do not generate sufficient cash flows, impairment losses will have to be recognized, adversely affecting Panasonic's results of operations and financial condition.

**Realizability of deferred tax assets and uncertain tax positions may increase Panasonic's provision for income tax**

In assessing the realizability of deferred tax assets and uncertain tax positions based on the expected future generation of taxable income or assessed sustainability of uncertain tax positions, Panasonic considers whether it is more likely than not that any portion or all of the deferred tax assets or recognized tax position benefit will not be realized. If Panasonic determines that temporary differences and loss carryforwards or recognized tax benefits cannot be realized upon the generation of future taxable income during the deductible periods due to deteriorating

business conditions or tax position benefits may not be realized upon settlement, valuation allowance against deferred tax assets or unrecognized tax benefit reserves could be recognized and Panasonic' s provision for income tax may increase.

**Financial results and condition of associated companies may adversely affect Panasonic' s operating results and financial condition**

Panasonic holds equities of several associated companies. Panasonic can exercise influence over operating and financing policies of these companies. However, Panasonic does not have the right to make decisions for them since the companies operate independently. Some of these companies may record losses. If these associated companies do not generate profits, Panasonic' s business results and financial condition may be adversely affected.

## Environmental Policy

Contributing to society has been the management philosophy for Panasonic ever since its founding. We announced the Environmental Statement in June 5, 1991, clarifying our approaches to address global environmental issues as a public entity of society. Since then we have been carrying out initiatives including matters on global warming prevention and resources recycling corporate-wide, aiming to attain a sustainable, safe, and secure society.

In 2010 we announced the Vision Looking to the 100th Anniversary of Our Founding. Striving to become a Green Innovation Company, the environment was made central to all of our business activities, and integrating environmental contribution and business growth was promoted. Thorough energy-saving measures were taken in all factories around the world, which resulted in the reduction of total CO<sub>2</sub> emissions in production activities. In addition, we introduced a unique indicator "size of contribution in reducing CO<sub>2</sub> emissions" to ensure reduction of CO<sub>2</sub> during product use. By increasing the number of products that have the industry's top-level environmental performances, as well as expanding products equipped with ECONAVI, a function that finds loss automatically and saves power by itself through sensor technology, we have reduced the amount of CO<sub>2</sub> emissions from product use at homes. Furthermore, pursuing Recycling-oriented Manufacturing, which means to make the best use of resources, was added as a new target. This enabled us to widen our environmental contributions, including the launch of Resources Recycling-oriented Products that proactively utilize recycled resources.

Panasonic announced its new business policy in March 2013. Regarding our environmental sustainability management, we established the Environmental Action Guideline in July 2013, which follows the new business policy and places our initiatives for Green Innovation we have accumulated to date as the core.

### ■Environmental Policy

#### Environmental Statement

Fully aware that humankind has a special responsibility to respect and preserve the delicate balance of nature, we at Panasonic acknowledge our obligation to maintain and nurture the ecology of this planet. Accordingly, we pledge ourselves to the prudent, sustainable use of the earth's resources and the protection of the natural environment while we strive to fulfill our corporate mission of contributing to enhance prosperity for all.

#### Environmental Action Guideline

Toward achieving a sustainable society, we will strive to develop our business through the creation of environmental value. For this purpose, we will address environmental challenges through our business activities and will expand our environmental initiatives based on collaboration with stakeholders.

##### (1) Initiatives to address environmental challenges

- We will reduce CO<sub>2</sub> emissions through production activities, products and services.
- We will work to efficiently use resources by pursuing Recycling-oriented Manufacturing.
- We will conserve water resources through efficient use of water and prevention of contamination.
- We will reduce the impact of chemical substances on human health and the environment.
- We will consider and conserve biodiversity.

##### (2) Initiatives based on collaboration with stakeholders

- We will provide products and services that create environmental value for customers with our technical strengths.
- We will expand our environmental contributions with our partner companies.
- We will deepen communications with local communities and work as a team to address environmental challenges.

#### Environmental Action Plan

We strive to grow and develop our business through the creation of environmental value for customers with our technical strengths while each and every employee follows the Environmental Policy to address environmental challenges. Therefore, collaboration with stakeholders including our partners is essential. We will continue to sincerely work on environmental sustainability management through further collaboration with stakeholders.

## Environmental Action Plan "Green Plan 2018"

After the completion of the Green Plan 2010 which was established in 2001, the Green Plan 2018 was established in 2010 to clarify our targets for fiscal 2019 (from April 1, 2018 to March 31, 2019) and actions to be taken in order to achieve the targets. Furthermore, the Green Plan 2018 was revised in July 2013, followed by the newly-established Environmental Action Guideline.

The revised Green Plan 2018 will continue our initiatives in five areas: mainly CO<sub>2</sub> reduction and resources recycling, and water, chemical substances, and biodiversity. With the new business policy, we will further focus on maximizing the size of contribution in reducing CO<sub>2</sub> emissions, which is an index that indicates our efforts for CO<sub>2</sub> reduction, while maintaining our stance towards contribution in making net CO<sub>2</sub> emissions from the international community peak and decline thereafter at an earlier timing. As for resources recycling, we will continue to enhance the promotion of recycled resource utilization ratio and factory waste recycling rate, as well as create more Resources Recycling-oriented Products to further actualize Recycling-oriented Manufacturing.

In addition, with respect to eco-conscious products and businesses, we will expand the range of activities to products, services, and solutions in the B2B sector, while keeping strengths in the home appliances field, to continuously provide products and services that create environmental value for our customers. Panasonic will deepen the collaboration with various partners across the supply chain and accelerate environmental contributions to extend better impacts on the society.

We will steadily execute this Environmental Action Plan towards achieving our fiscal 2019 targets.

## Environmental Action Plan "Green Plan 2018"

Environmental Action Guideline		Targets for 2018
<b>(1) Initiatives to address environmental challenges</b>		
<b>CO<sub>2</sub> Reduction</b>	We will reduce CO <sub>2</sub> emissions through production activities and products/services.	<ul style="list-style-type: none"> <li>Maximize the size of contribution in reducing CO<sub>2</sub> emissions from production activities and product use (Size of contribution in reducing CO<sub>2</sub> emissions: 47 million tons in 2015)</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 in 2018 compared to 2005 (Japan and international))</li> <li>Reduce CO<sub>2</sub> emissions from offices (Reduction by 2% or more on yearly average until 2018 (Self-owned buildings in Japan))</li> <li>Increase the Business of Energy Conservation Support Service for the Entire Factory</li> </ul>
<b>Resources Recycling</b>	We will work to make the best use of resources by pursuing Recycling-oriented Manufacturing.	<ul style="list-style-type: none"> <li>Reduce total resources used and increase recycled resources used (Recycled resource utilization ratio: 16% or more in 2018)</li> <li>Achieve "zero waste emission" from production activities at sites both in and outside Japan (Factory waste recycling rate: 99.5% or more in 2018)</li> <li>Expand the creation of Resources Recycling-oriented Products</li> </ul>
<b>Water</b>	We will conserve water resources through efficient use of water and prevention of contamination.	<ul style="list-style-type: none"> <li>Increase products to save water and contribute to water recycling</li> <li>Reduce water consumption in production activities and increase the use of recycled water</li> </ul>
<b>Chemical Substances</b>	We will reduce the impact of chemical substances on human health and the environment.	<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> </ul>



Environmental Action Guideline		Targets for 2018
		<ul style="list-style-type: none"> <li>Minimize the release of environmentally hazardous substances from factories</li> </ul>
<b>Biodiversity</b>	We will consider and conserve biodiversity.	<ul style="list-style-type: none"> <li>Increase products contributing to biodiversity conservation</li> <li>Use green areas in business divisions to contribute to biodiversity conservation</li> <li>Promote green procurement for wood toward sustainable utilization of forest resources</li> </ul>
<b>(2) Initiatives based on collaboration with stakeholders</b>		
<b>Customers</b>	We will provide products and services that create environmental value for customers with our technical strengths.	<ul style="list-style-type: none"> <li>Offering products, services, and solutions that improve people's lifestyles, reduce burden on the environment, and help to make our society more sustainable</li> <li>Promote 'eco' marketing firmly rooted in each region and country</li> </ul>
<b>Supply Chain</b>	We will expand our environmental contributions with our partner companies.	<ul style="list-style-type: none"> <li>Increase environmental contributions through the promotion of Green Procurement with suppliers (Establish environmental management systems and address five major environmental challenges)</li> <li>Promote the ECO-VC (Value Creation) Activity aimed at simultaneously achieving environmental contributions and cost reductions</li> </ul>
<b>Local Communities</b>	We will deepen communications with local communities and work as a team to address environmental challenges.	<ul style="list-style-type: none"> <li>Communicate our approaches to environmental contribution to society in the form of an 'eco ideas' declaration</li> <li>Participate in presenting proposals for environmental policies by the government, aimed at the creation of a sustainable society</li> <li>Implement initiatives contributing to local communities and educate children who will be the major players in the next generation (Promote Panasonic Eco Relay for Sustainable Earth) (Provide environmental education to two million children around the world by 2018)</li> </ul>

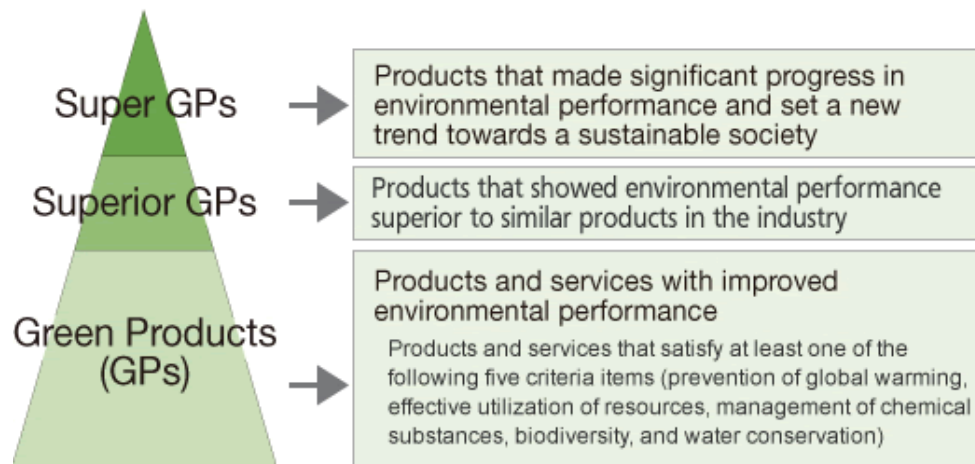
Note: 2005, 2015 and 2018 here refer to fiscal 2006 (April 1, 2005 – March 31, 2006), fiscal 2016 (April 1, 2015 – March 31, 2016), and fiscal 2019 (April 1, 2018 – March 31, 2019), respectively.

### 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 achieved high environmental performance as Green Products (GPs). Additionally, products that showed environmental performance superior to similar products in the industry are certified as Superior GPs. Products that set a new trend towards a sustainable society are certified as Super GPs.

In the GP accreditation criteria, 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 biodiversity and water conservation to existing items. This has in turn enabled the creation of a wider range of GPs.

#### ■Green Product Accreditation Criteria



## ■Product Assessment System



Product Environmental Assessment		
Items for assessment		Assessment criteria
(1) Products	Effective utilization of resources	Resource saving, light weight/downsizing, number of reused parts, durability, amount of recycled resources used, structure to easily remove batteries, indication regarding recovery/recycling, etc.
	Water and biodiversity conservation	Water saving, consideration for biodiversity
	Effective utilization of resources	Resource saving, light weight/downsizing, number of reused parts, durability, amount of recycled resources used, etc.
	Comparison with competitors' products	
(2) Production process (of relevant products)	Prevention of global warming	CO2 emissions and energy saving
	Effective utilization of resources	Resource saving, mass of packaging materials to be wasted, amount of resources used, amount of waste from factories, etc.
(3) Packaging	Effective utilization of resources	Resource saving, light weight/downsizing, amount of foamed plastic used, amount of recycled resources used, etc.
(4) Instruction manual	Effective utilization of resources	Resource saving, light weight/downsizing, amount of recycled resources used
(1)(2)(3)(4)	Management of chemical substances	Panasonic's Chemical Substances Management Rank Guidelines (for products and factories)
LCA*1		Global warming, acid rain, air pollution
Information management		Green procurement, information provision across the supply chain, etc.

Laws/regulations and Panasonic's criteria, guidelines, and environmental action plan

\*1 Life Cycle Assessment: Method of quantitatively assessing the environmental impact of products at each life cycle stage.

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

After achieving our fiscal 2011 target of developing 90% or more GPs for three consecutive years since fiscal 2006, we decided to shift the focus of our activities to the creation of Superior GPs. The idea of Superior GPs was launched in fiscal 2005 with the certification of 19 models. Subsequently, the number has increased while upgrading the standards on superiority over competing goods, which led to certification of 464 models in fiscal 2013. Although the ratio is small, there is also a growing number of products that have been certified for protecting biodiversity and water resources.

In addition to the increase in number of models, since fiscal 2011 we have also been working on increasing the percentage of sales for Superior GPs. Impacted by the drop in sales of consumer goods, the percentage of sales for Superior GPs remained at approx. 10% in fiscal 2013.

The Super GP for fiscal 2013 was the Super High Brightness DLP®\*2 Projector, which is used to project images onto large screens at concerts and convention halls. With high-power lamps, a new quad-lamp system, and a new liquid cooling system, the amount of power consumption, weight/volume, and noise all



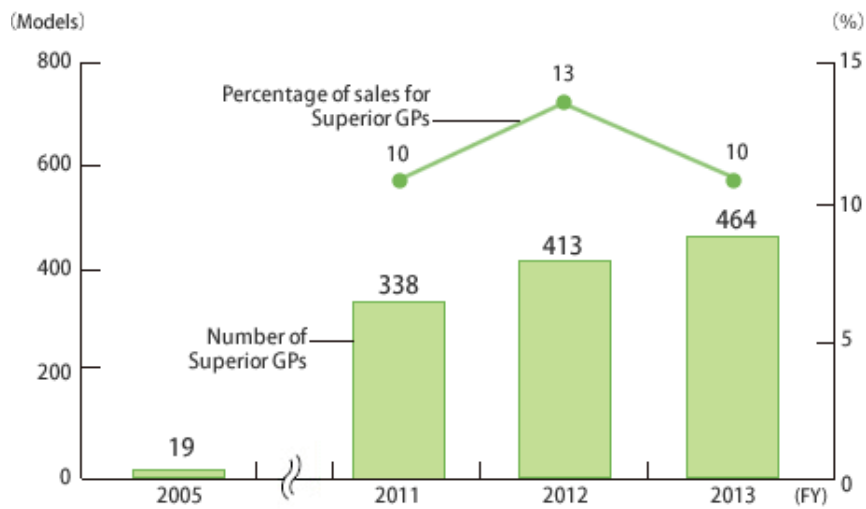
Super High Brightness DLP® Projector PT-DZ21K

have been significantly improved compared with similar professional projectors by competitors. This has enabled us to realize an innovative evolution in the environmental performance of this projector.

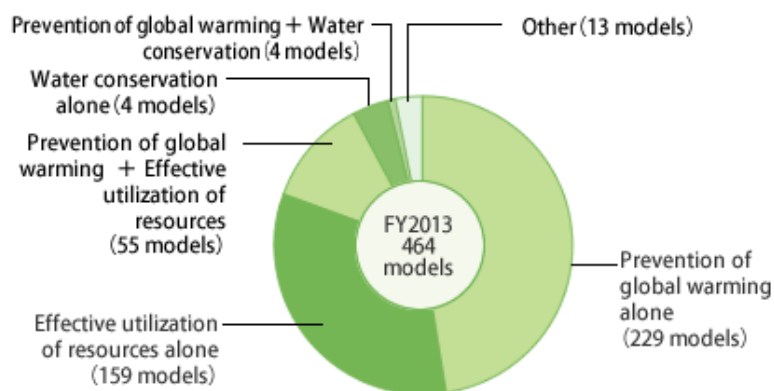
\*2 DLP is a registered trademark of Texas Instruments.

▶ [List of certified Green Products](#)

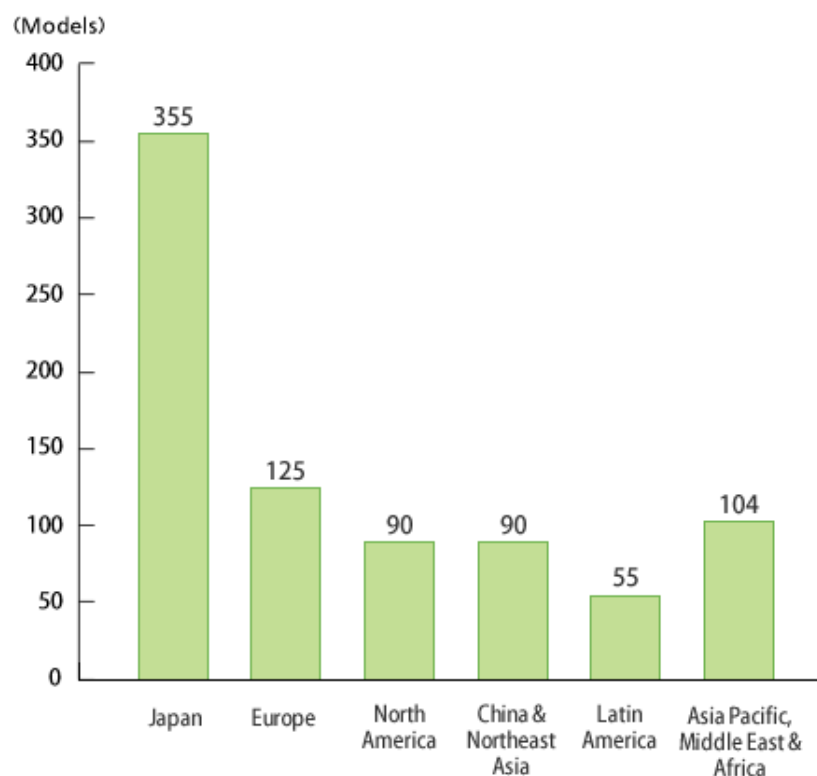
■ Number of Superior GPs and Their Percentages of Sales



■ Number of Superior GPs (by feature)



■ Number of Superior GPs in Fiscal 2013 (by region) \*3



\*3 Global models sold in multiple regions are counted as one in each region.

## Initiatives for Eco-conscious Factories (Green Factories)

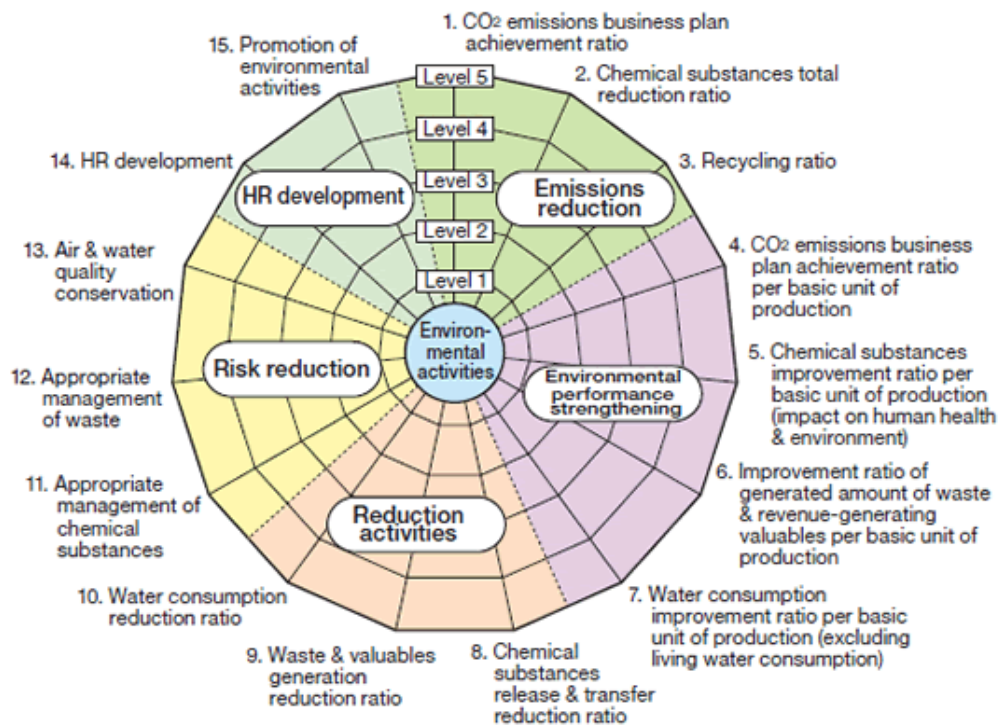
We aim to reduce our environmental impact to as close to zero as possible in all our factories worldwide, and our Green Factories (GFs) are engaged in activities that will help us achieve this goal. Specifically, we include plans to reduce the environmental impacts in our production activities focusing on our factories' CO<sub>2</sub> emissions, total waste generation, and chemical substance releases and transfers in our midterm business plan and business goals, and implement those plans as well as progress control.

We started our internal GF accreditation system in fiscal 2006 to evaluate the activities of our factories and we certify factories that meet certain standards as GFs. After achieving a fiscal 2011 target of 90% or higher GF accreditation rate for all factories in fiscal 2009 and 2010, we upgraded the GF accreditation system to the GF assessment system to further improve the standard of measures implemented across our factories.

Under the upgraded system, our factories evaluate themselves on a one-to-five scale across 15 environmental activity items classified into five groups, and visualize the progress to address issues and make improvements.

The group-wide goal of achieving over Level 4 on average by fiscal 2013 was realized ahead of schedule in fiscal 2012. We are determined to reduce environmental impacts and at the same time enhance our management structure through the PDCA of these activities.

## ■ Indicators for GF Assessment System



## Advanced Examples of Eco-conscious Factories

In fiscal 2013, Yamagata Plant, which manufactures digital camera lens units and aspherical lenses, was awarded the Minister of Economy, Trade and Industry prize in the Energy Conservation Grand Prizes hosted by the Energy Conservation Center, Japan (ECCJ) for factory-wide original activities to save and create energy. Energy conservation and productivity were upgraded to minimize energy consumption per basic unit through real-time monitoring of facility operation status and improvements in manufacturing processes, including the development of energy-saving lens molding devices. After the Great East Japan Earthquake, action was taken to respond to the need to control peak power demand, such as reducing the air-conditioning load by recycling the air returned from clean rooms, improving pressure loss in air ducts at plants, exhaustively reducing the use of lighting, and installing LED lighting fixtures. Despite the difficulties in organizing production shifts caused by 24-hour operation, maximum peak power consumption was slashed by 21% in fiscal 2012 over the previous year, and CO<sub>2</sub> emissions reduced by 17%.



Yamagata Plant

On December 12, 2012, we opened the Panasonic Technopark as a major operational base in India. Technopark is located in Jhajjar in the state of Haryana, India, and produces air-conditioning units “Cube” for the Indian market, as well as washing machines and welding equipment. It is India's first ‘eco ideas’ factory\*4 to engage in eco-conscious manufacturing through CO<sub>2</sub> emission reduction, waste management and recycling, and chemical substance management. In the face of this chronic shortage of power and water, Panasonic has installed a solar power generation system with a maximum output of 28.29 kW to serve its administrative buildings and parking areas, and a 100% water recycling system for its plant and administrative offices. Through these efforts we are contributing to local power conservation and the preservation of sustainable water resources, as well as promoting energy-saving activities such as greater visibility of power usage.

\*4 An ‘eco ideas’ Factory is a model factory which lives in harmony with local communities and stakeholders, as well as embodies Panasonic's environmental strategy with two ‘eco ideas’ initiatives.



Technopark floor plan

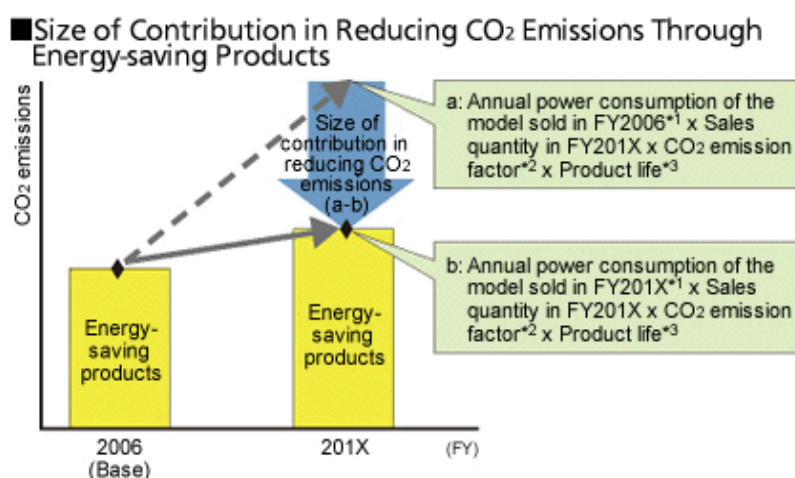


## Size of Contribution in Reducing CO<sub>2</sub> Emissions

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% from the 2005 level by the year 2050. To achieve this, CO<sub>2</sub> emissions should "peak out" (reach a peak and decline thereafter) during the period from 2020 to 2030. With this background, companies are asked to contribute to reducing CO<sub>2</sub> more than ever.

Panasonic has introduced a unique indicator "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. Panasonic will continue to maximize the size of contribution in reducing CO<sub>2</sub> emissions.

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

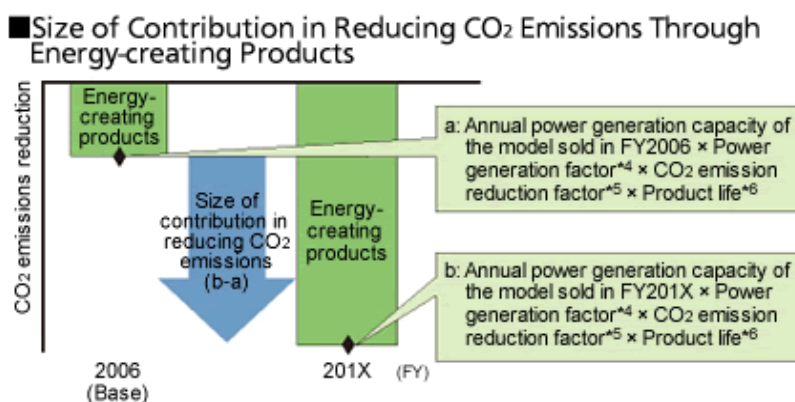


\*<sup>1</sup> For each product category, the model that was sold in the largest quantity in the region was selected.

\*<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. Panasonic will further foster its energy creation business to make an even greater contribution to CO<sub>2</sub> emissions reduction.



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

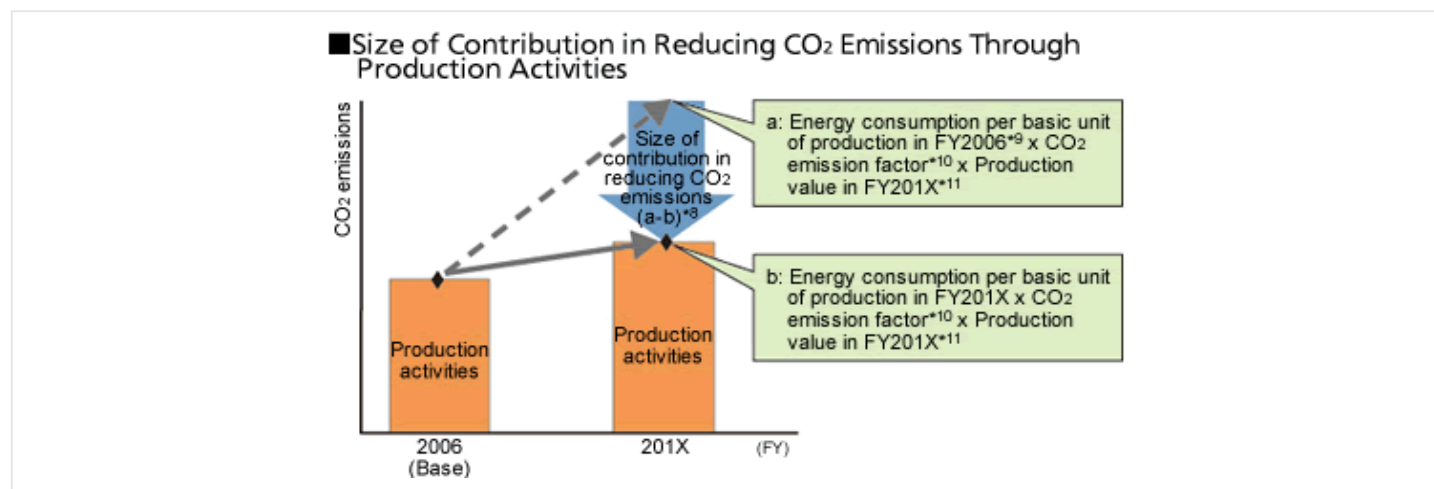
\*<sup>5</sup> For photovoltaic power generation: 0.3145 kg-CO<sub>2</sub>/kWh (considering energy used in the manufacturing process; by the Japan Photovoltaic Energy Association).

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



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

\*7 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).



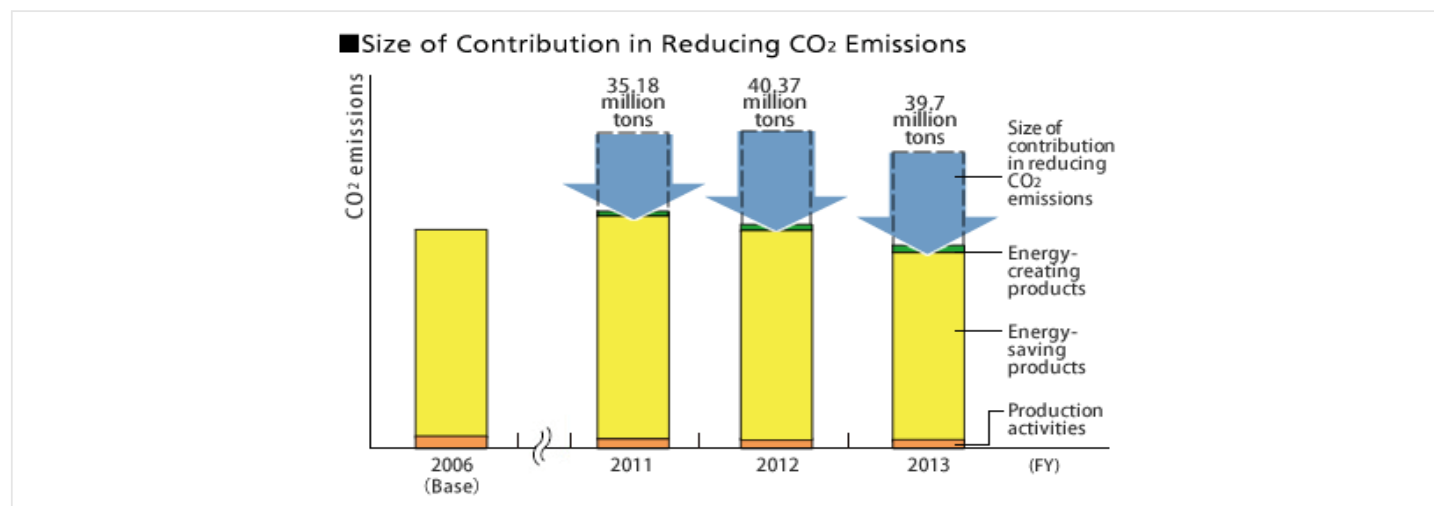
\*8 Factories whose nominal energy consumption per basic unit of production had increased from the fiscal 2006 level due to sharp declines in product prices recorded negative figures in the size of contribution in reducing CO<sub>2</sub> emissions. For the size of contribution made by factories consolidated 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.

\*9 CO<sub>2</sub> emissions per basic unit for fiscal 2006 were used for factories acquired; while for factories newly constructed, the CO<sub>2</sub> emissions per basic unit for the fiscal year in which they were constructed were used.

\*10 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 (kg-CO<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.

\*11 Nominal production value.

Relative to the target of 41 million tons in fiscal 2013, the size of contribution in reducing CO<sub>2</sub> emissions came to 39.7 million tons, mainly due to the drop in sales of consumer goods.



Global warming has become one of the biggest social problems we have to address as a global community. People are required to give consideration to reducing wasted energy, while enjoying the benefits of convenience and comfort in their daily lives.

“Home appliances that find loss in daily lives automatically and save power by themselves.” In 2009, we launched our home appliances with ECONAVI function, which automatically controls power and water consumption to cut losses using sensor and other technologies. Since then, we have heard from many of our customers who had been seeking eco-conscious products just how happy they are with the reduction of electricity costs and other resources. Along with increasing the range of products equipped with ECONAVI function, we also commenced a global expansion in 2010. We now offer 25 products with ECONAVI function across 88 countries in Southeast Asia, the Middle East, and Europe, as well as China and India.

The foundation of home energy saving lies in energy conservation by home appliances. Panasonic has developed a range of energy-saving technologies including inverters and heat pumps, improved appliances such as vacuum insulation materials, and minimized stand-by energy consumption, thereby building up a set of advanced technologies that contribute to the environment. We will further offer “better life” with convenience, comfort, and eco-consciousness to our customers around the world through our exclusive ECONAVI function. The following articles report on the global expansion of such ECONAVI products, with a focus on Asia.

### Products Equipped With ECONAVI Function



#### 1. From Japan to the World

I am in Corporate Overseas Marketing Division of Appliances Company, and am in charge of marketing to promote entire categories of products.

The ECONAVI function was first equipped in our products in Japan in 2009, with sales expanding outside Japan in 2010. We now offer a lineup of ECONAVI products such as refrigerators, washing machines, and air conditioners particularly in Asia, including Singapore, Malaysia, Thailand, and Indonesia. We promote intelligent energy conservation through ECONAVI function in addition to the basic energy-saving functions that are standard to our products, and support the eco life of our customers with the industry's top-ranking energy conservation performance.

We will continue to increase the awareness of ECONAVI products that please our customers and help people in the world live conveniently, comfortably, and eco-consciously.



Kunihiko Ide  
Planning Group, Corporate Overseas Marketing  
Division, Appliances Company, Panasonic Corporation

## 2. Expansion in China



Advertising in the streets in China



Exhibition in China

I am in charge of marketing for refrigerators in China.

Panasonic commenced full-scale promotion of ECONAVI function in China in 2012. Four categories of our products, air conditioners, drum washing machines, refrigerators, and air cleaners, acquired the China Environmental Labeling Type II \*1 in the same year. The label demonstrates that the four categories of the products not only fulfill Chinese quality standards, but are also superior in eco-consciousness in that they fulfill the required conditions to protect the environment in each stage of production, usage, and disposal of products, and lead to effective use of resources.

We plan to further enhance the ECONAVI product range in the Chinese market. Through the active promotion campaign of the ECONAVI product group, we will continue to strive for the spread of energy-saving home appliances and to make environmental contributions in China.

\*1 China Environmental Labeling Type II is the highest environmental protection product certification issued by the Ministry of Environmental Protection as a national government standard in order to promote the proliferation of eco products in China. The certification method and procedures are compliant with the ISO 14020 series standards.



Ling Ting  
Team Leader

Product Team, Refrigerator Business Unit, AP  
Marketing Department, Panasonic Consumer  
Marketing China

## 3. Expansion in Thailand



Promotion in Thailand



Thai customers who are very interested in ECONAVI products

I am in charge of marketing for refrigerators in Thailand.

Thailand is facing the problem of high domestic electricity prices due to concerns about power shortages. Panasonic started promoting energy conservation in 2008 by introducing inverter-equipped home appliances such as air conditioners, refrigerators, and washing machines. In 2012, we appointed the nationally popular actress Yaya as our Brand Ambassador to promote our ECONAVI product group—both through the media and at stores. The ECONAVI product lineup, which offers automatic and stress-free energy conservation utilizing sensor technology, is welcomed by customers in Thailand.

We will expand the scope of our ECONAVI product range and make further environmental contributions in Thailand.



Pernpis Charoenpanichsanti  
Senior Manager

Refrigerator, Marketing Department,  
Panasonic A.P. Sales (Thailand) Co., Ltd.



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

The target for the size of our contribution in reducing CO<sub>2</sub> emissions through energy-saving products was 34.85 million tons in fiscal 2013. However, the actual result was 33.68 million tons, mainly due to the drop in sales of consumer goods. In a breakdown of CO<sub>2</sub> emissions reductions by global product category, approx. 83% came from air conditioners, TVs and illumination lamps. By region, Japan, Asia Pacific, Middle East & Africa, and China & Northeast Asia made up roughly 72%. In addition, CO<sub>2</sub> emissions from the use of our major products in fiscal 2013 was estimated to be approx. 77 million tons. \*1

\*1 Lifetime CO<sub>2</sub> emissions from major products\*2 with large amounts of energy use. Lifetime CO<sub>2</sub> emissions = Annual power consumption of a model sold\*3 x Sales quantity x product life\*4 x CO<sub>2</sub> emission factor\*5

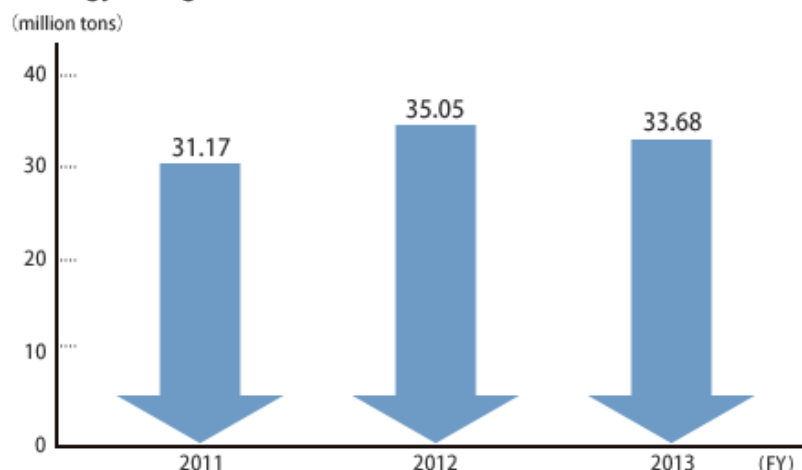
\*2 Household air conditioners, commercial air conditioners, household fluorescent/silica lamps, LED lamps, LED lighting equipments, refrigerators, EcoCute, LCD TVs, plasma TVs, IH cooking heaters, dish washer and dryers, bathroom ventilator-driers, dehumidifiers, extractor fans, washing/drying machines, fully-automatic washing machines, electronic rice cookers, microwave ovens, warm-water bidets, irons, hair dryers, air purifiers, under-rug heaters, vacuum cleaners, BD recorders, electric thermal pots, clothes dryers, extractor hoods, household facsimiles, telephones, etc.

\*3 For each product category, the model that was sold in the largest quantity in the region was selected.

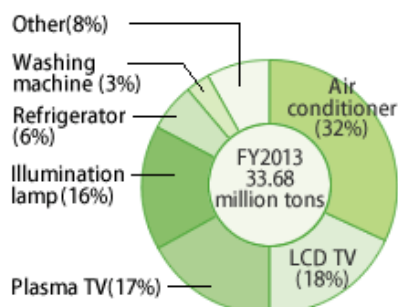
\*4 Number of years during which spare parts for the product are available (defined by Panasonic).

\*5 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).

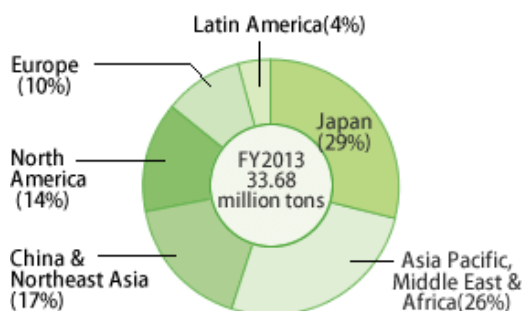
■ Size of Contribution in Reducing CO<sub>2</sub> Emissions Through Energy-saving Products



■ Size of Contribution in Reducing CO<sub>2</sub> Emissions Through Energy-saving Products (by product)

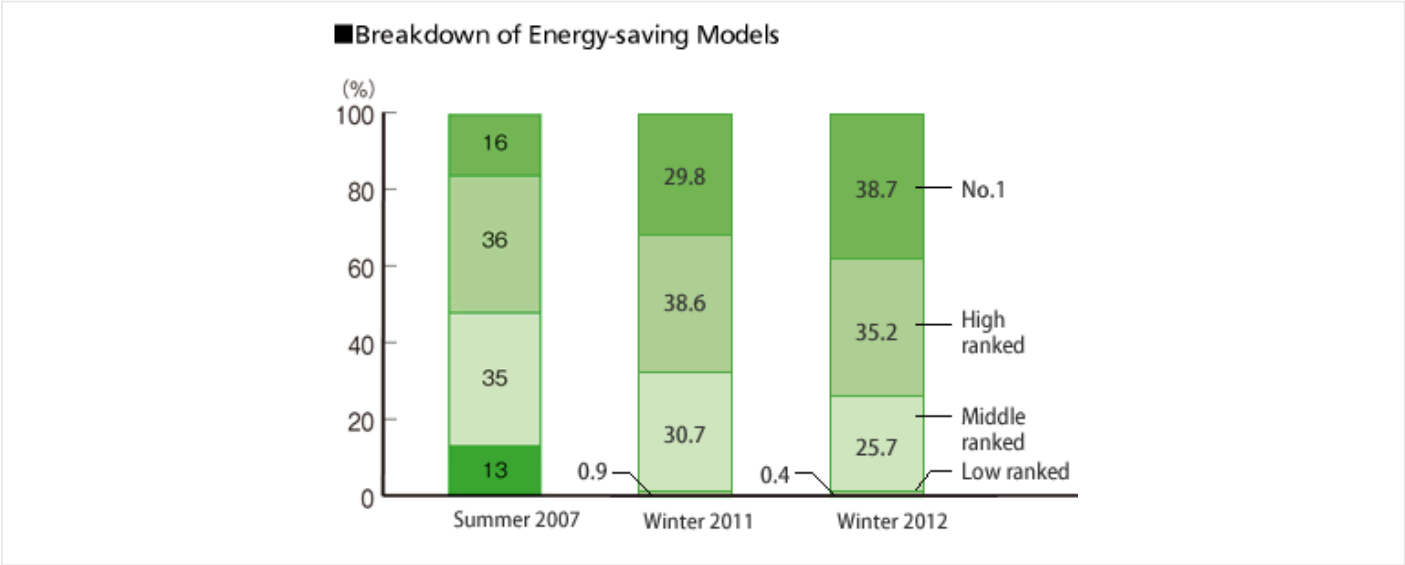


■ Size of Contribution in Reducing CO<sub>2</sub> Emissions Through Energy-saving Products (by region)



In Japan, we continue to work toward increasing the percentage of No.1 energy-saving products while reducing the percentage of low energy-saving products, in accordance with the Energy Conservation Performance Catalog. \*6 Regarding the target of achieving more than 30% ratio in No. 1, more than 70% in the top ranking ratios (including No. 1), and reducing lower-ranking product types as far as possible, we have been able to push up the No. 1 ratio from 16% to 38%, the top ranking ratio from 62% to 73%, and the number of low-ranking product types reduced to one model (0.4%) for which production has been terminated, achieving in effect, zero.

\*6 Published twice a year (summer and winter) by the Agency for Natural Resources and Energy under the Ministry of Economy, Trade, and Industry of Japan.




Examples of No.1 Energy-saving Products


Blu-ray Disc Recorder: DIGA

The 2012 model of DIGA for the Japanese market, DRM-BR130, has reduced power consumption-not only when operating but also in standby mode-achieving 14.9 kWh \*7 in annual power consumption, which is the lowest in industry. \*8 In addition, it was selected as the Product of the Year in the Eco Mark Awards 2012, as a product that excels not only in energy-saving performance but also in resource conservation and recyclability.

\*7 Reference value calculated based on JEITA standards.  
\*8 As of October 11, 2012. As Blu-ray disc recorder.



Blu-ray Disc Recorder DIGA DRM-BR130



Eco Mark Award 2012 logo

Air Conditioner

The 2012 model, CS-TC18N KY, for the Indian market is equipped with a compressor capable of stable operation even under temperatures as high as 55°C and achieves an outstanding energy efficiency ratio of 11.64 Btu \*9 /hW. Further, it has the ECONAVI function for automatically controlling and adjusting operation power by detecting the level or absence of human activity, cutting down energy consumption by as much as 20%. The product received India's National Energy Conservation Award 2012, given for outstanding energy-saving performance.

\*9 British thermal unit.





## Freezer-refrigerator

The 2012 model for Brazil, NR-BB51PV1, has achieved energy consumption of 44 kWh/month **\*10** through its inverter and other energy-saving technologies, and has been certified as Rank A, the top-level ranking in Brazil's energy conservation standards. Also, its ECONAVI function to automatically conserve energy by detecting the refrigerator door opening and closing or the room light being turned off to suspend power consumption during designated hours, has contributed to further reducing power consumption by as much as 10%.

**\*10** Based on the special regulations of the National Institute of Metrology, Quality and Training (INMETRO) of Brazil



Freezer-refrigerator NR-BB51PV1

## Nickel Metal Hydride Rechargeable Battery for Household Use: eneloop

Nickel metal hydride rechargeable batteries lose their power output during long periods of storage due to self-discharge, the natural depletion of battery capacity.

Using our own unique technology, energy loss of the eneloop by self-discharge has been curbed, achieving the industry's top-class residual energy ratio of approx. 90% after one year and approx. 70% after five years. Also, the charger is equipped with a standby energy zero **\*11** mode, controlling energy loss also when recharging.

**\*11** Under 0.005 W (based on international standard IEC 62301)



Nickel metal hydride rechargeable battery for household use eneloop

## LED Line-type UV Curing System

UV printing in which UV light is used to dry the ink instantaneously offers many benefits. In addition to eliminating the need to wait for the ink to dry, it has the capability of printing on a wide range of materials and can be used in various applications.

Our LED line-type UV curing system, UD90, is equipped with its own unique cooling mechanism to prevent overheating, thus making the use of high-output UV LEDs possible. Compared to conventional UV lamp mechanisms, energy consumption while in operation has been cut to roughly 1/8. Also, LEDs enable instantaneous on and off, enabling power to be shut down during standby, compared to the conventional mechanism that requires power during standby mode, thereby reducing energy consumption on standby to approx. 1/18. Furthermore, the UV LED has a life roughly 15 times that of conventional UV lamps, lasting around 15,000 hours. It is also distinguished for not using mercury.

These environmental functionalities have been recognized with the UD 90 receiving the Japan Machinery Federation Chairman's Award at the fiscal 2013 Commendations for Outstanding Energy-Saving Appliances.



LED line-type UV curing system UD90

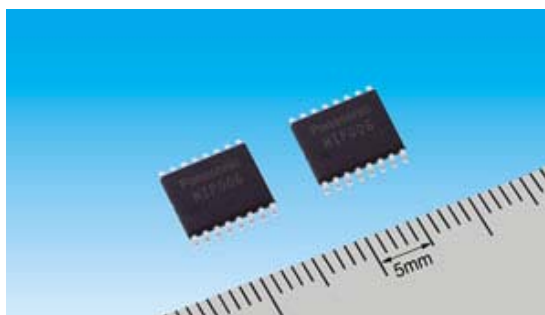


Mark of Commendations for Outstanding Energy-Saving Appliances

## PWM Control IC for Switching Power Supply

The MIP006 PWM control IC for switching power supply, launched in 2012, has been used as a power supply for TVs and PCs. Appliances remaining connected to an electrical outlet are able to reduce energy consumption when the power is off by 94% compared to the previous MIP2D2 model. Standby power consumption in AC 100 V connection can be reduced to under 0.003 W, contributing to our goal of standby energy zero\*12 power consumption for appliances.

\*12 Under 0.005 W (based on international standard IEC 62301)



PWM control IC for switching power supply MIP006

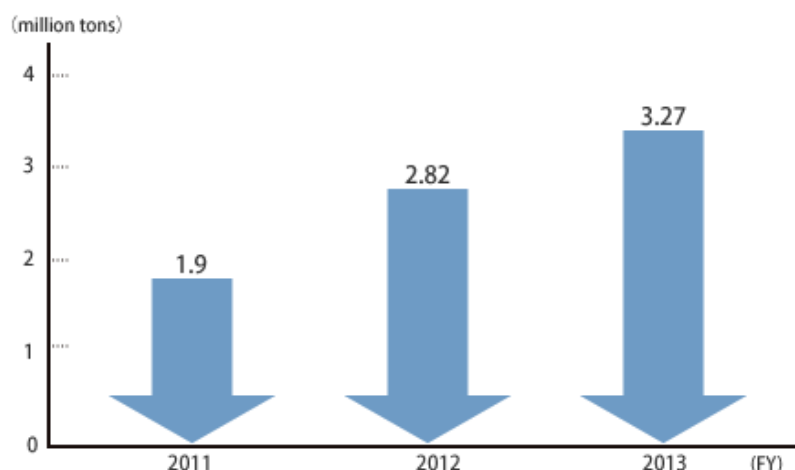
## Contribution in Reducing CO<sub>2</sub> Emissions Through Energy-creating Products

We actively develop our energy creation business to maximize the size of contribution in reducing CO<sub>2</sub> emissions. 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.

The size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products for fiscal 2013 was 3.27 million tons, severely impacted by market slowdown due to the reduction of renewable energy-related subsidies in Europe. Although the goal of 3.6 million tons was not reached, the effort resulted in a 15% growth over the previous year.



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



## 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 or ash is emitted during photovoltaic power generation.

The Panasonic Group's HIT <sup>\*13</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. The HIT 233/240 Series, the home photovoltaic power generation system that achieves top-class power output, <sup>\*14</sup> has been joined by the HIT Half-Type 116/120, which has half the size and was launched in January 2013. With the introduction of this product, combined use with the standard size has enabled effective use of space and installation of more photovoltaic modules.

Also, HIT photovoltaic cells achieved the world's top conversion efficiency <sup>\*15</sup> of 24.7% <sup>\*16</sup> in research tests. The conversion efficiency rate achieved 0.5 percentage points higher than the top rate of the single-crystal silicone solar cell reported for commercial sizes (of over 100 cm<sup>2</sup>), demonstrating that HIT solar cells possess outstanding efficiency.

<sup>\*13</sup> "HIT" is a registered trademark and an original technology of the Panasonic Group.

<sup>\*14</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 November 2012 (surveyed by Panasonic).

<sup>\*15</sup> As of February 12, 2013 (surveyed by Panasonic).

<sup>\*16</sup> The National Institute of Advanced Industrial Science and Technology evaluation results.



Residential photovoltaic power generation system (joined by the half-type)

## 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 domestic gas companies to lead the world in bringing fuel cell cogeneration technology into the home for residential use. By December 2012, we shipped a total of approx. 21 thousand units.

In addition, new products were developed in the ENE-FARM series in cooperation with Tokyo Gas Co., Ltd., to further reduce the price and installation space, as well as achieve a general efficiency of 95.0% (LHV <sup>\*17</sup>), which is the highest in the world. <sup>\*18</sup> The products were launched in April 2013.

<sup>\*17</sup> Lower Heating Value: The value determined by subtracting latent heat of the water vapor from the amount of heat generated when fuel gas is fully combusted.

<sup>\*18</sup> For household fuel cell cogeneration systems. As of January 17, 2013 (surveyed by Panasonic).



New product of ENE-FARM

## Lithium-ion Storage Battery System for Public and Industrial Use

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.

The Panasonic XLJ-ME15A lithium ion storage battery system 15 kWh (compatible to general environment) can store power directly from photovoltaic power cells without DC to AC power conversion, thus eliminating power storage losses and ensuring efficient power consumption. In case of power failure, the system automatically switches to independent operation and supplies power to designated devices. Additionally, the power supply from the storage batteries can be controlled with a timer to supply power automatically during peak power hours and control system power consumption as a result. It is also compatible to multiple output of single-phase 100 V/single phase & triple phase 200 V, so that it can be used in a variety of electrical devices including lighting fixtures, electric fans, cell phones, notebook PCs, wireless communication devices for use in disaster situations, security devices, and pumps. The product has been designated as eligible for the FY2012 Subsidy Program Promoting Installation of Stationary Lithium-ion Storage Batteries.



Lithium-ion storage battery system for public and industrial use XLJ-ME15A

## 12 V Energy Recycling System Utilizing Automotive Nickel Metal Hydride Batteries

In line with the rise in environmental awareness and to improve fuel efficiency of vehicles, the use of Idle Stop vehicles is spreading alongside eco-cars including hybrid vehicles (HEVs). Idle Stop vehicles had the problem of huge battery load due to the need to supply total power from the (lead) battery for the air conditioning fan and other devices during Idle Stop (engine not running) in addition to engine startup.

For this reason, Energy Company developed the 12 V Energy Recycling System utilizing automotive nickel metal hydride batteries for Idle Stop vehicles. The system stores the energy generated at deceleration and reuses the energy to improve its capability of supplying energy to the electrical components of the vehicle. In addition, further improvements in fuel efficiency can be made possible by supplying power to the assist motor of the drive system. Based on technology cultivated in the development of HEV batteries, power cells with enhanced power storage efficiency and durability under high temperatures have been developed. This design enables greater flexibility in terms of installation, such as installation in the engine compartment.

Furthermore, the 12 V Energy Recycling System can be connected in parallel to the lead battery. This leads to reduction of the load on the lead battery because the electric current mainly flows to the nickel metal hydride battery due to its low electrical resistance. Panasonic tests showed that the life of the main battery (lead battery) is extended by about 6 times <sup>\*19</sup> when used together with the 12 V Energy Recycling System, compared to that of the lead battery system when used alone.

<sup>\*19</sup> Panasonic test results of power discharge life in Idle Stop vehicles (SBA S0101) with the additional condition of acceleration at 60°C. Panasonic electric battery (Q-55) and 12 V Energy Recycling System.

### To a Virtually Zero CO<sub>2</sub> Emissions Lifestyle

While people try to realize a higher standard of living, the increase of CO<sub>2</sub> emissions from households is becoming a concern. As a company that provides a range of products deeply rooted in people's lives, Panasonic works to comprehensively reduce CO<sub>2</sub> emissions from stand-alone home appliances to the whole house itself, with the four concepts of "create energy," "store energy," "save energy," and "manage energy." First, we reduce energy consumption of the whole house by saving energy. Energy yet necessary even after saving is covered by energy created by photovoltaic power generation and fuel cells and energy stored by household lithium-ion accumulator batteries. Through this energy management system which links and controls the created and stored energy, we aim to have virtually zero CO<sub>2</sub> emissions.

In October 2011 we launched CASART TERRA, a house that realizes virtually zero CO<sub>2</sub> emissions through PanaHome. This house delivers an energy-efficient yet comfortable living space with a full insulation system used in conjunction with geothermal heat and a hybrid ventilation system with ECONAVI, as well as cancels out CO<sub>2</sub> emissions through the use of EcoCute, Ene-Farm, and our solar power generation system. Further, this CASART TERRA was upgraded to Smart PanaHome in April 2012 with the additional functionality provided by the Energy Creation-Storage Linked System, which links a solar power generator with accumulator batteries.

Following the launch of the Energy Creation-Storage Linked System, a core controller to manage home electric facility and appliances, AiSEG, was introduced to the market in October 2012. This was the beginning of full commercialization of our Smart Home Energy Management System (HEMS). AiSEG enables monitoring of energy creation and usage across the house, automatically controlling energy facilities such as the solar power generation system, Energy Creation-Storage Linked System, and EcoCute, in combination with home appliances including air conditioners and IH cooking heaters, to deliver easy-to-achieve energy conservation. Through implementation of this Smart HEMS, the Smart PanaHome further evolved into the NEW Smart PanaHome, which actualizes effortless electricity saving and home power generation that contributes to safety during a power cut in the event of a disaster.

As an independent system, our full insulation system and hybrid ventilation system with ECONAVI have won the Minister's Prize of the Ministry of Land, Infrastructure, Transport and Tourism in the Eco Products Category of the 9th Eco Products Awards in November 2012, which demonstrates their high recognition as a housing technology that contributes to CO<sub>2</sub> emission reduction. Backed up by such excellent energy conservation and CO<sub>2</sub> emission reduction performance, in March 2013 CASART TERRA was awarded the Special Grand Prize in House of the Year in Energy 2012, sponsored by the Japan Center for Area Development Research as one of the best energy-saving houses.

CASART ECO CORDIS is a house equipped with even higher environmental performance than the CASSART series and first appeared on the market in April 2013. The roof of this house is actually constructed from solar panels, which in total provides a minimum 10 kW power to each house as standard. The house improves the self-sufficiency rate of annual primary energy while also reducing CO<sub>2</sub> emissions.



Core controller that manages home electric facility and appliances: AiSEG



CASART TERRA



CASART ECO CORDIS

### PanaHome Smart City Shioashiya, a Town With Virtually Zero CO<sub>2</sub> Emissions

As a part of the business operated by Panasonic to develop a whole town, PanaHome also develops and sells PanaHome Smart Cities, which are housing developments that offer sustainable and smart lifestyles. The first of such developments is PanaHome Smart City Shioashiya (Ashiya, Hyogo Prefecture, Japan) and sales of ready-built homes in Block 1 in the town commenced in July 2012. All 109 houses in the block adopt the Energy Creation-Storage Linked System. This system connects a solar power generator (energy creator) and lithium ion accumulator batteries (energy storage) through a single power conditioner. Embedding this System within Smart HEMS optimizes energy usage in the house. This is the first development in Japan to offer houses equipped with accumulator batteries that reduce peak power usage and provide a secure power source in the event of a power cut\*1.



Street in PanaHome Smart City Shioashiya

Sales of the remaining Blocks 2 to 4 in the development (approx. 300 detached houses and 100 apartments) will take place in stages to form a smart net-zero energy town with virtually zero CO<sub>2</sub> emissions. The town offers effortless energy saving and a safe lifestyle that ensures a power source during a power cut caused by disasters or other reasons, as well as contributing to curbing peak electricity usage as the whole town.

\*1 As of July 2012.

## Building a Smart Town

We are currently promoting our comprehensive energy solutions across the world. This is the application of our energy systems business not only to shops and public buildings, but right across a whole town. In the Fujisawa Sustainable Smart Town (FSST) project which is one of our key projects, we have taken the initiative in building a completely new town on our previous factory site located in Fujisawa City, Kanagawa Prefecture, Japan, to offer an environment where people can sustain eco and smart lifestyles that benefit from natural energy resources. In an area of approx. 19 ha, we are building some 600 detached houses and 400 apartments, along with full welfare functions, including care, medical, and educational facilities. This Smart Town is planned to open in Spring 2014.

The major features of the FSST project are environment, safety, and security of the whole town. The targets of each area are shown below.

Environmental targets: Reduction of CO<sub>2</sub> emissions by 70% (compared to 1990) and reduction of water usage by 30% (compared to 2006 with standard equipment used in a house)

Energy target: Renewable energy usage rate of at least 30%

Safety and security targets: Ensuring a 3-day lifeline

All houses, public buildings, and other facilities in the town are fully equipped with solar power generation systems and home accumulator batteries from the beginning, representing the world's first. In total this equates to approximately 3 megawatts of solar cell generation and 3 megawatts of accumulator battery storage installed across the town as a whole.

### ▶ Fujisawa Sustainable Smart Town

Outside Japan, we are involved in the Sino-Singapore Tianjin Eco-City project and the Dalian Best City project to install energy management support systems and other such equipment. We are also currently working with a governmental body in Singapore to participate in field trials of total energy solutions in a public apartment housing area in Punggol. The project is testing Smart HEMS and other energy solutions for one year from January 2013.



Public apartment buildings in Punggol, Singapore



Equipment installed in a home



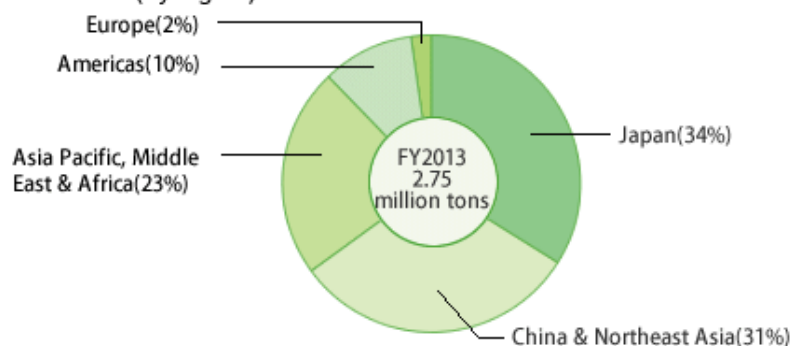
## Contribution in Reducing CO<sub>2</sub> Emissions Through Production Activities

With respect to our 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.

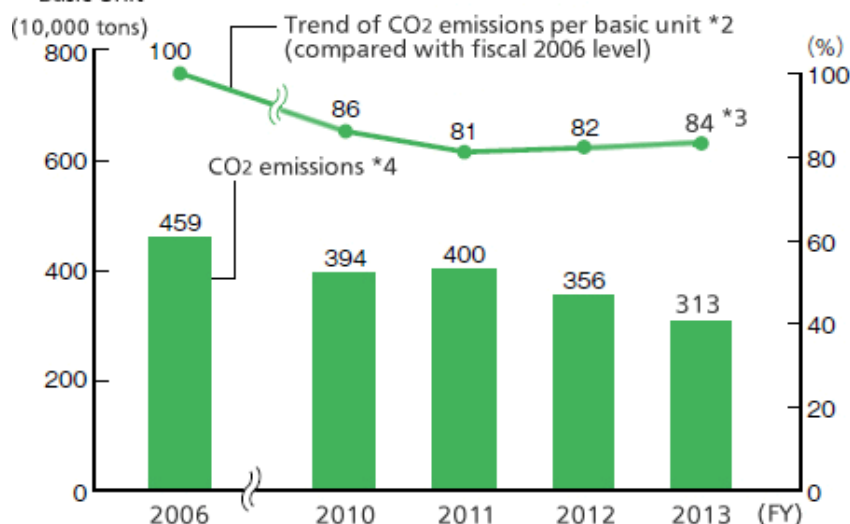
We promoted measures including CO<sub>2</sub> ITAKONA\*1 initiatives, Top Runner Factories for saving and creating energy, sharing CO<sub>2</sub> reduction examples and training experts through the entire Group, and as a result, we increased the size of contribution in reducing CO<sub>2</sub> emissions through production activities in fiscal 2013 to 2.75 million tons, exceeding our target of 2.55 million tons.

\*1 ITAKONA is a term unique to Panasonic which 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. The activity is aimed at discovering energy conservation measures from a new viewpoint through continuous display of energy consumption levels (energy consumption per basic unit), and analyzing the factors that influence the variables in each basic unit.

■ Size of Contribution in Reducing CO<sub>2</sub> Emissions Through Production Activities (by region)



■ CO<sub>2</sub> Emissions in Production Activities and the Trend of CO<sub>2</sub> Emissions Per Basic Unit



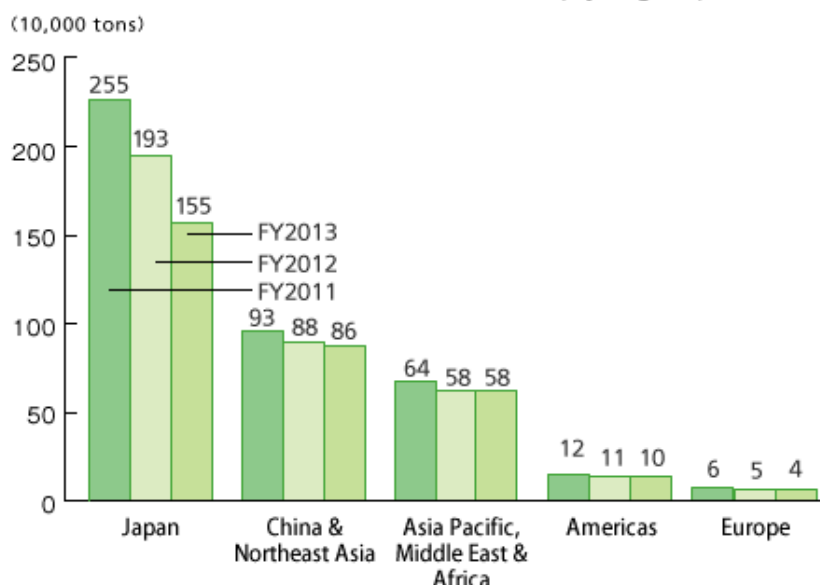
\*2 Calculated with the weighted average of the improvement rate for CO<sub>2</sub> emissions per basic unit of nominal production for each factory. The amount of CO<sub>2</sub> emitted from each factory was used for weighting cases that had no improvements.

\*3 Increase in CO<sub>2</sub> emissions per basic unit in fiscal 2012 and 2013 is due to the decline in production volume.

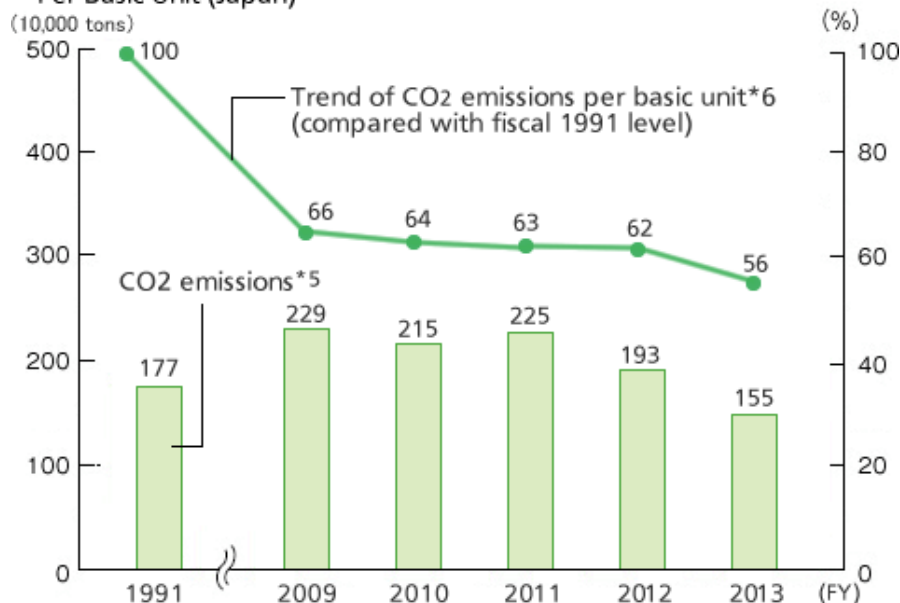
\*4 The factors related to fuels are based on the Guidelines for Calculation of Greenhouse Gas Emissions (version 2.2) published by the Japanese Ministry of the Environment. The CO<sub>2</sub> emission factor for electricity purchased in Japan (kg-CO<sub>2</sub>/kWh) is fixed at 0.410. If the factors set for each fiscal year are used instead (0.425 for fiscal 2006, 0.351 for fiscal 2010, 0.350 for fiscal 2011, and 0.476 for fiscal 2012 and 2013), total CO<sub>2</sub> emissions will be 4.63 million tons for fiscal 2006, 3.70 million tons for fiscal 2010, 3.74 million tons for fiscal 2011, 3.81 million tons for

fiscal 2012, and 3.33 million tons for fiscal 2013. The factors above are also used for electricity purchased from power producers and suppliers (PPS). The GHG Protocol factors for each country are used for electricity purchased outside Japan.

### ■CO<sub>2</sub> Emissions in Production Activities (by region)



### ■CO<sub>2</sub> Emissions in Production Activities and the Trend of CO<sub>2</sub> Emissions Per Basic Unit (Japan)



\*5 If the factors set for each fiscal year are used instead (0.417 for fiscal 1991, 0.373 for fiscal 2009, 0.350 for fiscal 2010, 0.350 for fiscal 2011, and 0.476 for fiscal 2012 and 2013), the improvement rate for CO<sub>2</sub> emissions per basic unit of actual production (compared with fiscal 1991 level) will be 39% for fiscal 2009, 44% for fiscal 2010, 45% for fiscal 2011, 31% for fiscal 2012, and 38% for fiscal 2013.

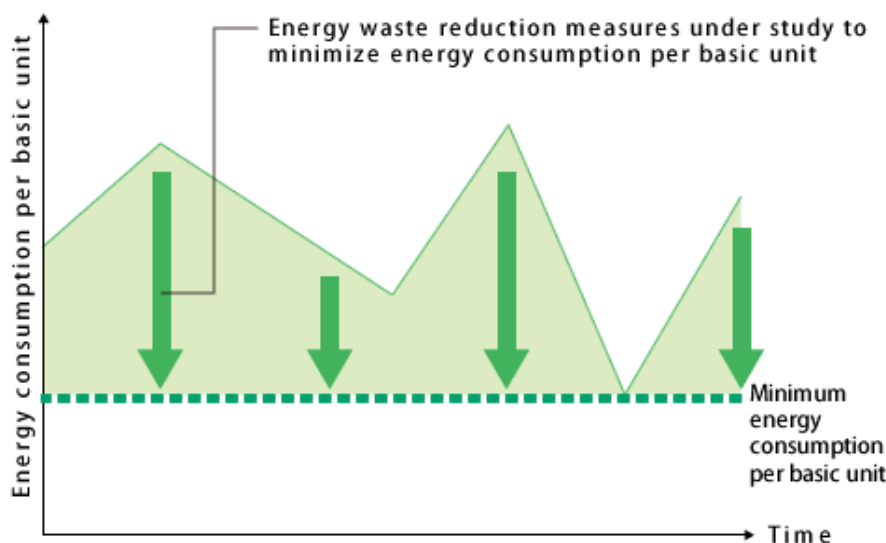
\*6 CO<sub>2</sub> emissions per basic unit = CO<sub>2</sub> emissions/ (Production value /Bank of Japan's corporate goods price index [electrical machinery and equipment])

## Promotion of CO<sub>2</sub> ITAKONA 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\*7 initiative.

Based on this scheme, the CO<sub>2</sub> ITAKONA initiative has been implemented since fiscal 2011. The activity is aimed at discovering energy conservation measures from a new viewpoint through continuous display of energy consumption per basic unit of production, and analyzing the factors that influence the variables in each basic unit.

## ■ Concept of the CO<sub>2</sub> ITAKONA Initiative



In order to accelerate action under the CO<sub>2</sub> ITAKONA initiative, we have been developing the SE-Navi software, which enables the simultaneous display of energy and production data and analysis of energy consumption per basic unit. In fiscal 2013, the “energy-saving navigation function” was developed as a new feature of the software.

In the past, energy consumption and other data had been analyzed manually by specialists in order to develop energy conserving measures. The new energy-saving navigation function has enabled automatic data analysis and measurement, based on an energy-saving measures database. This contributed not only to a reduction in work time but also to the identification of energy-saving measures without the assistance of specialists. This new function was introduced in Panasonic Corporation Eco Solutions Company's air conditioner manufacturing factory and contributed to CO<sub>2</sub> emissions reduction of approx. 10% in fiscal 2013.

\*7 METAGEJI is a term unique to Panasonic which refers to visualizing energy consumption and implementing measurable reduction initiatives by introducing measurement instruments, such as meters and gauges.

## Promotion of Top Runner Factories for Saving and Creating Energy

To further promote energy conservation and reduce CO<sub>2</sub> emissions across our company, since fiscal 2011 we have selected Top Runner Factories in each of our business domains to provide a model for other factories in the domain to follow. Top Runner Factories make investments in energy conservation and create three-year implementation plans that are used to raise the environmental performance of all companies within the domain. This plan provides 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 system for energy consumption visualization, (5) Promoting factory-wide CO<sub>2</sub> emissions reduction efforts in production processes, and (6) Introducing photovoltaic power generation 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 relating factories worldwide by Top Runner Factories.

A photovoltaic power generation system of 600 kW was introduced at the Kita-kadoma site in Osaka in July 2012. Further action into the introduction of recyclable energy will be implemented in the future, chiefly using solar power generation.

## Sharing CO<sub>2</sub> Reduction Examples and Training Experts

In September 2008, we created a keyword search system on the intranet with a database of CO<sub>2</sub> reduction examples called BA Charts. \*8 A total of 1,100 examples are registered in the database and we are now promoting its use across the company.

For the promotion of energy conservation initiatives, it is critical to train engineers versed in energy-saving technologies. Accordingly, Panasonic has held 45 training seminars on CO<sub>2</sub> reduction since fiscal 2008, developing a total of 1,037 experts.

Not only studying theory, from fiscal 2011, we also began holding a competition on energy conservation diagnosis skills (ability to present proposals of improvement measures for energy conservation at offices and factories). These activities promote the development of human resources who have both theoretical and practical knowledge about onsite energy-saving activities.

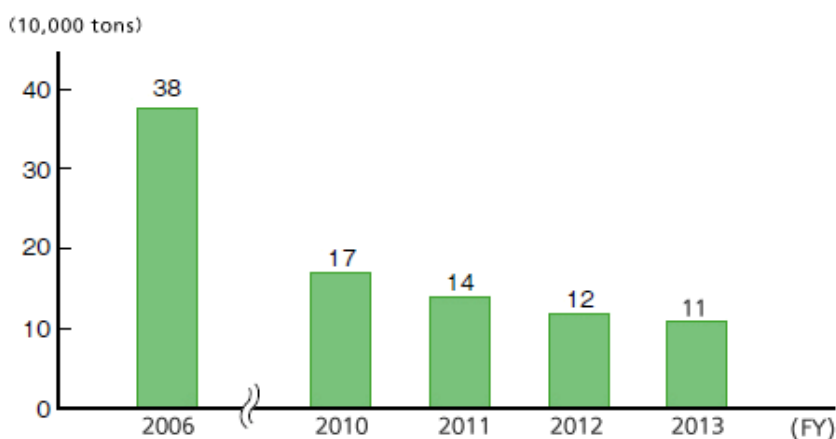
\*8 BA Chart: Chart that provides a comparison between before and after the implementation of CO<sub>2</sub> reduction measures.

## Reducing the Emissions of GHGs Other Than CO<sub>2</sub> From Energy Use

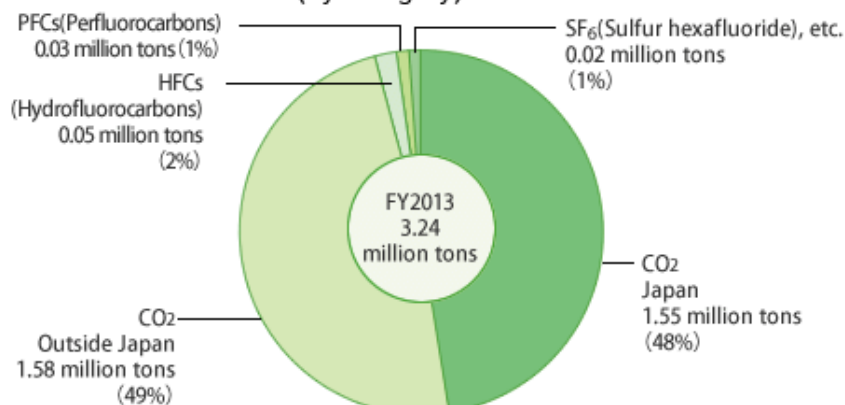
In addition to CO<sub>2</sub>, Panasonic emits PFCs, SF<sub>6</sub>, and other GHGs, which are mainly used as etching and cleaning gases at its semiconductor factories. In order to reduce the emissions of these gases, our semiconductor factories have been implementing measures including substituting 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 has been continuing until 2012 its aim to reduce GHG emissions by at least 10% from the 1995 level by 2010. Panasonic's semiconductor department has achieved a 69% reduction from the 1995 level in fiscal 2013.

### ■ Emissions (CO<sub>2</sub>-equivalent) of GHGs Other Than CO<sub>2</sub> From Energy Use in Production Activities

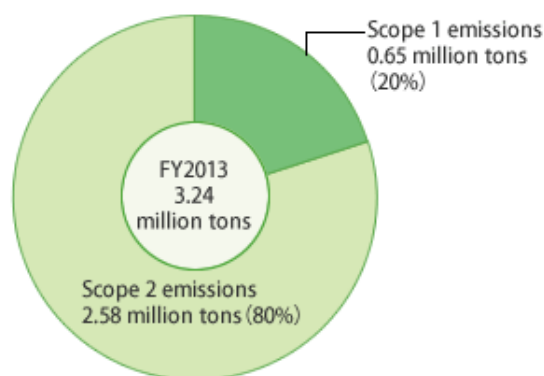


### ■ Breakdown of Total GHG Emissions (CO<sub>2</sub>-equivalent) in Production Activities (by category)





### ■ Breakdown of Total GHG Emissions (CO<sub>2</sub>-equivalent) in Production Activities (by scope)



## 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% or more each year, over a baseline year of fiscal 2008, at 75 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 have reached our goal in fiscal 2013, reducing our CO<sub>2</sub> emissions by approx. 0.18 million tons, marking an annual average reduction of about 4% compared with the fiscal 2008 baseline level.

From fiscal 2011, we started to check on a monthly basis the progress of all 120 sites including 45 sites owned by other companies. Furthermore, our original tool for energy conservation self-assessment, Green Office Assessment, is employed to inspect the status of activities in this area, based on 40 specific energy-saving items, in order to upgrade management levels.

### ■ CO<sub>2</sub> Emissions From Non-manufacturing Sites (self-owned office buildings in Japan)



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.

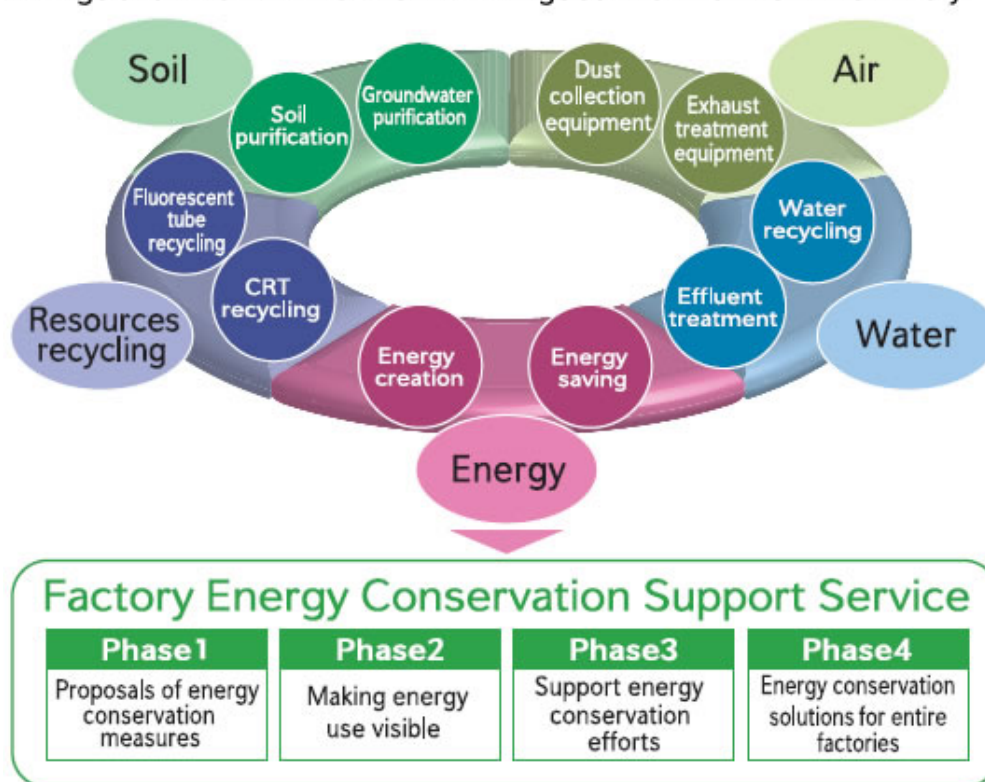
## Initiatives for Green IT

We promote Green IT in the drive to employ IT in cutting down environmental impacts. Specifically, PC power control and reduction of IT equipment standby power have been strengthened for energy conservation as well as operational improvement of IT equipment under the title Green of IT. Under the theme Green by IT, IT applications for energy reduction in society as a whole, such as teleworking, web conferencing, and HD video communications, are being promoted. The third area in energy conservation is the Green Data Center, which engages in data center energy reduction through server consolidation and integration.

## Environmental Support for the Entire Factory

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 offers environmental solutions in energy conservation, effluent treatment and water recycling, exhaust treatment, resources recycling, soil and groundwater purification, and energy creation such as photovoltaic power generation system. In particular, the Factory Energy Conservation Support Service was introduced in April 2010 to provide all-round support in energy-saving activities at the factory, from visualization of energy use and energy-saving diagnoses to execution of concrete energy-saving measures. The service has contributed in a reduction of CO<sub>2</sub> emissions of 0.84 million tons in manufacturing activities in three years. Furthermore, this is a total service, covering organizational management and promotion knowhow for energy conservation, schemes to share energy conservation data and knowhow, manpower training methods, and energy-saving equipment and systems. It provides comprehensive assistance in the aspects of technology, equipment, human resources, and finance necessary for energy saving at factories.

■Image of our Total Environmental Package Solutions for the Entire Factory



As a part of our service menu, we developed SE-Navi, a condensed system containing our energy management expertise and know-how to visualize energy consumption at factories. This system identifies the level of energy consumption efficiency with basic energies such as electricity and gas, physical data such as flow, pressure, temperature, humidity that directly reflects the operation status, and production quantity to help factories swiftly plan energy-saving measures, make trial calculations, and improve verification accuracy. This system also provides graphic displays of long-term efficiency fluctuations for equipment, including compressors, boilers, and freezers, to identify equipment deterioration and necessary maintenance-all of which serve to reduce wasted energy consumption. Furthermore, in fiscal 2013, the output unit calculated automatically from production output and energy consumption level was diagnosed and assessed using our own unique energy-saving determination method for the development of the “energy-saving navigation” function, which identifies problems in manufacturing lines and facilities on a timely basis. This function is scheduled to be commercialized by the end of fiscal 2014.

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

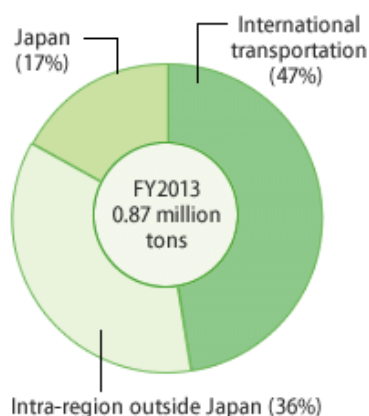
Panasonic has set the target of reducing its CO<sub>2</sub> emissions by 46% by fiscal 2019 (from fiscal 2006 level) and a midterm goal of reducing its CO<sub>2</sub> emissions per basic unit\*1 by at least 1% year-on-year for both international and domestic transportation every year until fiscal 2013.

In fiscal 2013, our global CO<sub>2</sub> emissions from logistics activities came to 0.87 million tons, of which international transportation was 0.41 million tons (47%), and domestic transportation within Japan was 0.15 million tons (17%). Due to modal shift activities, the year-on-year reduction rate of CO<sub>2</sub> emissions per basic unit from international and domestic transportation was 18% (compared to the fiscal 2012 level), achieving our midterm goal. In addition, the reduction in CO<sub>2</sub> emissions per basic unit from fiscal 2006 was 35%.

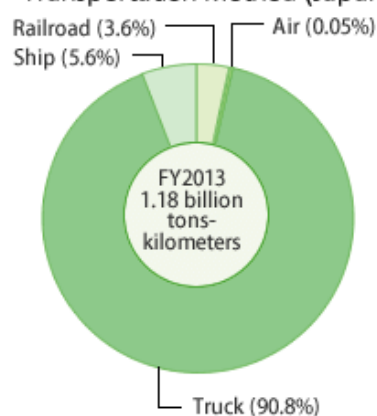
To accelerate green logistics outside Japan, we issued the Green Logistics Manual. The document covers logistics policy, CO<sub>2</sub> emission measurement outlines, and model cases to promote and disseminate the principles of green logistics. In China, in fiscal 2013, green logistics seminars were provided to logistics operation administrators in Dalian, Shanghai, and Guangzhou to raise green logistics standards.

\*1 CO<sub>2</sub> emissions per transportation weight.

■ CO<sub>2</sub> Emissions From Logistics

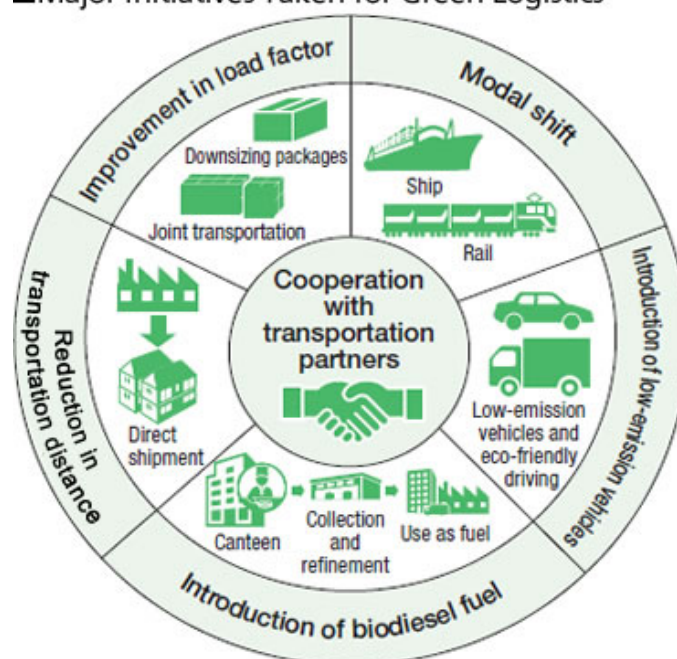


■ Transportation Amount by Transportation Method (Japan)



Note: Former SANYO Electric is not included in the intra-region outside of Japan and international transportation.

■ Major Initiatives Taken for Green Logistics



## Collaboration With Logistics Partners

We are working to increase transportation efficiency in collaboration with our logistics partners. In fiscal 2013, PanaHome Corporation, a group company specialized in housing, established seven ECO Centers jointly with its eight logistics partners. The ECO Centers are located among distribution centers, housing construction sites, and recycling companies across Japan, forming a logistics system with low environmental impact by efficiently transporting products and components, as well as waste.

Products and components used to be transported over long distances by multiple 4-ton trucks from the distribution center to the construction site. Now they are transported in batches using large 10-ton trucks to one of the ECO Centers, and then distributed to the construction sites by scheduled delivery trucks. After delivery, the trucks are then loaded with building waste from the construction sites, which used to be taken to a recycling company from each construction site but now returned to the ECO Centers on trucks on their way back from product and component delivery. Next, the collected waste is sorted at the ECO Centers according to its recycling purpose and transferred to the appropriate recycling companies.

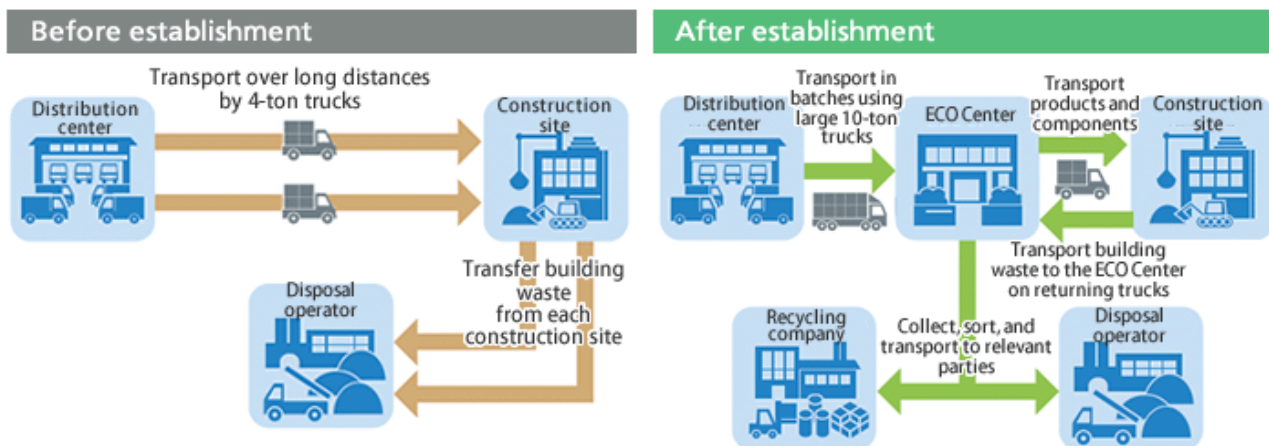
This improvement increased the recycling rate of building waste, contributing to realizing zero waste emissions. Also, the reduction in the number of vehicles used and the operation of empty trucks reduced CO<sub>2</sub> emissions by 31.7% compared to fiscal 2012. In December 2012, these efforts received the Ministry of Economy, Trade and Industry Director-General for Commerce, Distribution and Industrial Safety Policy Award in the 11th Excellent Green Logistics Commendation Program. This is the first time that companies in the housing industry won this award. As well as increasing transportation efficiency, we will further actively enhance usage of biofuel and low-emission vehicles, such as CNG-powered \*2 vehicles, by further enforcing collaborations with logistics partners.

\*2 CNG: Compressed natural gas.



Award ceremony of the 11th Excellent Green Logistics Commendation Program

### ■Comparison Before and After Establishment of ECO Center



## Building an Eco-conscious Logistics Infrastructure

Panasonic has commenced an overhaul of its logistics structure in Japan. Following the establishment of logistics centers in the eastern and western regions of Japan in fiscal 2012, we constructed an advanced distribution center for the Kyushu region, Tosu Center, in Tosu City, Saga Prefecture in fiscal 2013. The functions of the two existing distribution sites in the Kyushu region were integrated into Tosu Center, improving transportation efficiency and reducing CO<sub>2</sub> emissions. Distribution site integration also reduced the electricity usage in warehouses and offices by 139,120 kWh, as well as CO<sub>2</sub> emissions by 12% (57 tons), compared to fiscal 2012. We have also installed our own power generator in the nine major distribution sites across Japan, drawing lessons from the Great East Japan Earthquake aftermath, so that distribution to customers can be continued even during a power cut caused by a disaster. In addition to our environmental considerations, we are reinforcing our distribution infrastructure, taking account of disaster risks.

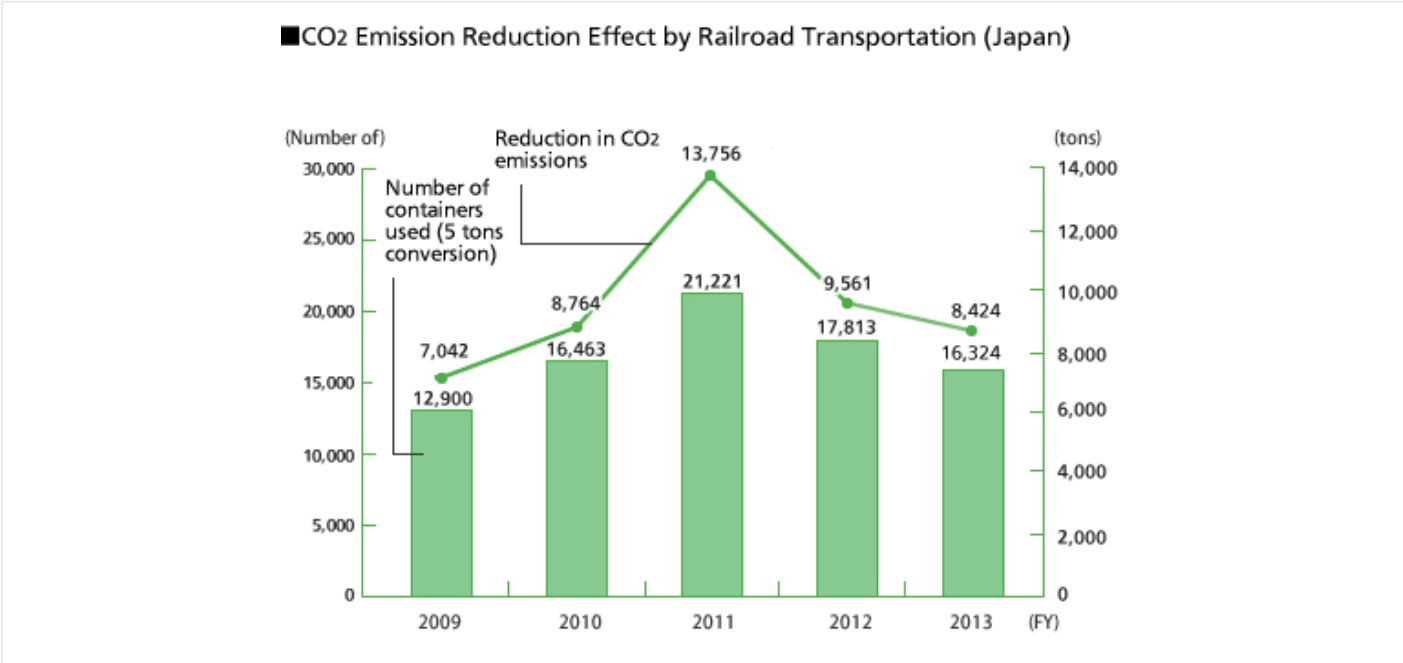
## Modal Shift \*3 Initiatives

Our domestic railroad freight transportation in fiscal 2013 totaled 16,324 five-ton containers, and 8,424 tons of CO<sub>2</sub> emissions were reduced through transportation modal shift. After termination of the Home Appliance Eco-point Program, \*4 the volume of domestic transportation has changed drastically. During this transitional period, we worked together with our logistics partners through the Modal Shift Promotion Council, and successfully switched long-distance transportation from vehicles to railroad freight between Kyushu and the Hokuriku and metropolitan areas. This shift was equivalent to 591 five-ton containers.



In addition, four of our products, the 1.5 V lithium battery EVOLTA, rechargeable EVOLTA, micro batteries, and battery-operated LED lights were certified to bear the Eco Rail Mark \*5 in June 2012. With these certifications, a total of seven Panasonic products are now Eco Rail Mark certified.

- \*3 Switch from truck and air transport to railroad and sea vessel transport that has less environmental impact.
- \*4 A program whereby certain points called Home Appliance Eco-points were given to purchasers of house appliances with high energy saving performance, and the points could then be exchanged for a variety of goods.
- \*5 A mark to identify businesses and products that use a certain level of railroad freight with little impact on the environment.



Note: Former SANYO Electric not included in fiscal 2009 through 2010.

### Introduction of Large CNG-powered Vehicles

Since fiscal 2010, we have been utilizing large CNG-powered vehicles, which are next generation low-emission trucks. This was the first attempt in the industry and the result of cooperation with the Ministry of Land, Infrastructure, Transport, and Tourism, Japan Gas Association, Japan Trucking Association, and various partner companies. One more vehicle was added in fiscal 2013, making a total of ten CNG-powered vehicles in operation, mainly around the major logistics centers in east and west Japan. We also participated in the Kansai International Airport Clean Logistics Project sponsored by the Kinki Smart Eco-Logis Council to promote usage of highly eco-friendly CNG-powered vehicles, and attended the project opening ceremony as the representative of freight companies in March 2013. The number of CNG-powered vehicles is increasing, particularly in the west Japan area. We continue to promote usage of eco-friendly vehicles.



Large CNG-powered vehicles owned by Panasonic

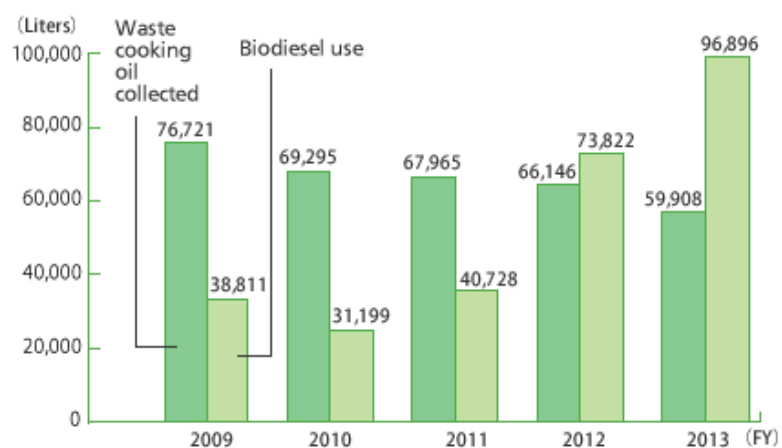


Kansai International Airport Clean Logistics Project opening ceremony

## Use of Biodiesel Fuel (Japan)

Panasonic transforms waste cooking oil into biodiesel fuel and utilizes it for vehicles used in its production, procurement, and marketing activities. We started joint transportation with other companies in fiscal 2010 in the Tokai and Tokyo metropolitan areas, where the vehicles use 100% biodiesel fuel. Through expansion of covered products and delivery areas, the amount of biodiesel fuel used increased by 31% in fiscal 2013 compared with fiscal 2012. In addition to reducing CO<sub>2</sub> emissions, use of biodiesel fuel saves costs by round-trip transportation and utilizing empty space on trucks for newspaper delivery.

■ Changes in Volume of Collected Waste Cooking Oil and Biodiesel Fuel Use (Japan)



Note : Former SANYO Electric is not included in fiscal 2009 through 2010.

### Enhancing Corporate Efficiency in Response to Power Shortages

The power situation in Japan changed dramatically with the Great East Japan Earthquake. In fiscal 2013, action on possible power shortages was demanded mainly in the service areas of Kansai Electric Power, Kyushu Electric Power, and Hokkaido Electric Power companies. Founded on energy conservation efforts that have continued for many years, we are working on power reduction in our sites, in an effort to deal with power cuts during peak periods. Specifically, we took measures suitable to the characteristics of each site, and conducted a wide range of power-saving activities from the three aspects of factories and offices, working style, and activities conducted by employees at their workplaces and homes. As a result, we were able to reduce our power consumption to meet the requests of the power companies in fiscal 2013.

In July 2011, Panasonic established the Corporate Electricity Saving Division to deal with the power shortages expected to continue long into the future, and has been accelerating measures to improve the productivity and management efficiency by making more efficient use of electricity. With the thorough entrenchment of energy-saving activities across the organization, the Corporate Electricity Saving Division was dissolved with successful results as of March 31, 2013. Power conservation efforts will continue into the future to deal with power shortages.

#### Factories and Offices

In our factories and offices, we implemented power-saving efforts such as “appropriately manage equipment and suspend the use of unnecessary devices,” “enhance the management of power usage,” and “extend the operating hours of in-house power generation systems, increase their capacity, and rent more systems.”

In power-saving, greater power usage visibility is an important element. Advanced technologies such as our energy display system, SE-Navi as well as diligent power-saving activities are being implemented to further enhance corporate efficiency in saving energy. Also, electric power generated by the cogeneration system at our Hokuiku Plant in the Hokuiku Electric Power service area has been classified as Deemed Power Conservation, contributing to the management of power shortages in the Kansai service area and at the same time realizing the power-saving target sought by the power utilities.

#### Working Style

As for working style, we promoted “ensure all employees leave work on time and encourage employees to travel directly to and from the work destination without stopping by at the office,” “encourage working at home,” and “expand the ‘cool biz’ period (from May to October),” etc.

Simultaneous leave from July 23-27 was implemented at our corporate Head Office in Kadoma City, Osaka Prefecture, by moving paid leave to be taken in autumn 2012 and later back to the July period. This has contributed to reducing consumption during the power peak for Kansai Electric Power.

#### Activities Conducted by Employees at Their Workplaces and Homes

Activities conducted by employees at their workplaces and at home include the following: proposals for power saving ideas that can be implemented both in the company and at home; environmental e-tests featuring questions related to power conservation; and promotion of a household Power Saving Action Plan.

In power conservation, activities at the homes of employees are important alongside activities at business sites. For this reason, the Power Saving Action Plan by employees was put into effect in fiscal 2012. In fiscal 2013, 17,800 employees participated in the summer, and so did 13,200 in the winter. Comparing to the results in fiscal 2012, participants succeeded in reducing their use of electricity at their homes by about 1.6% in summer and by about 3.6% in winter, on average per household. The plan has led to successful power conservation. At the same time, a contribution of LED lights that can generate a power conservation effect equivalent to 1% of the total power saved at employees' homes was made to disaster-affected areas since the winter of fiscal 2012. Over three occasions, a total of 1569 LED lights (including extra donations) and 100 solar-powered LED lanterns were donated to Iwate, Miyagi, and Fukushima Prefectures.



LED light bulbs donated through local NPOs



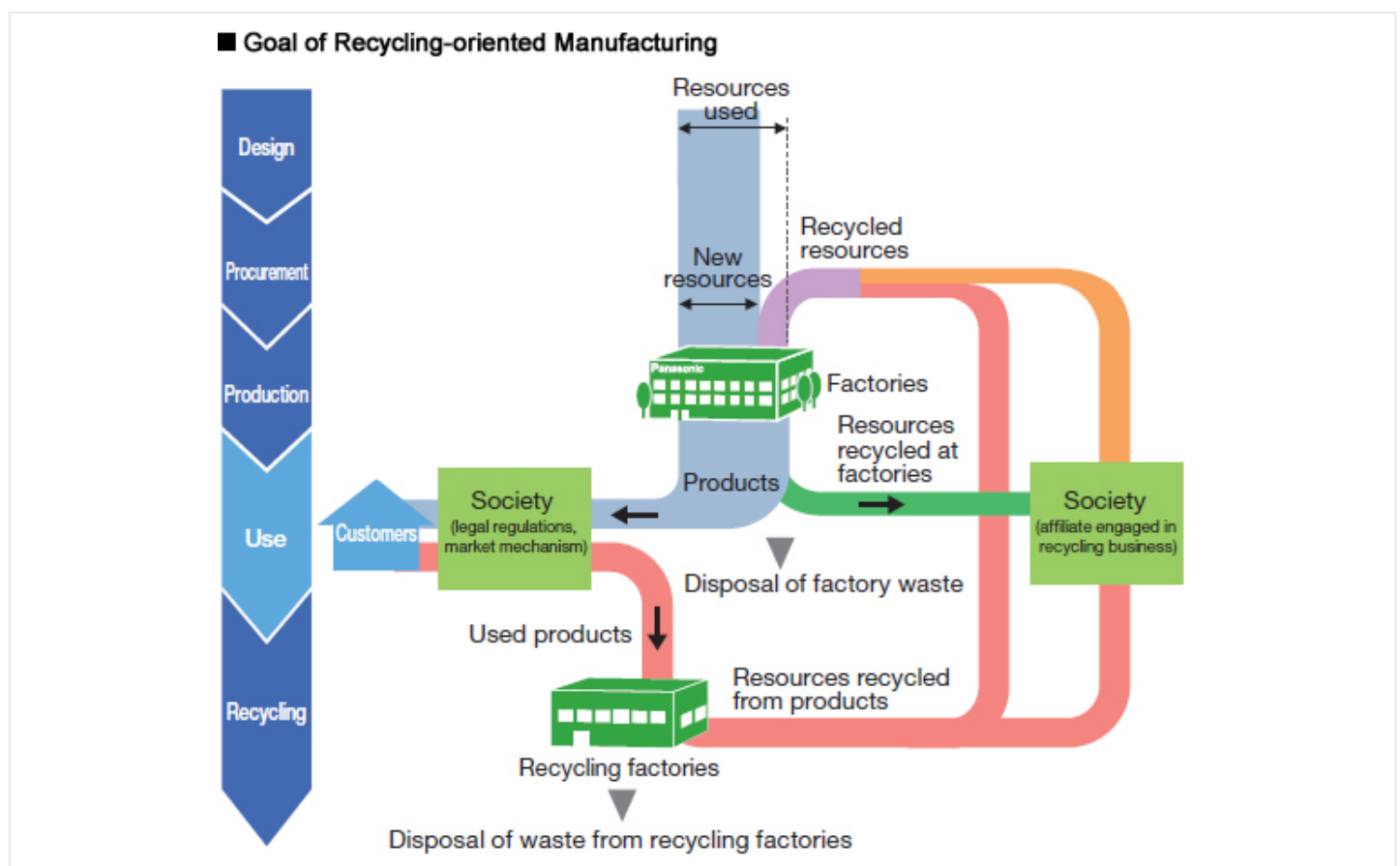
Donated LED lights being installed



## Recycling-oriented Manufacturing

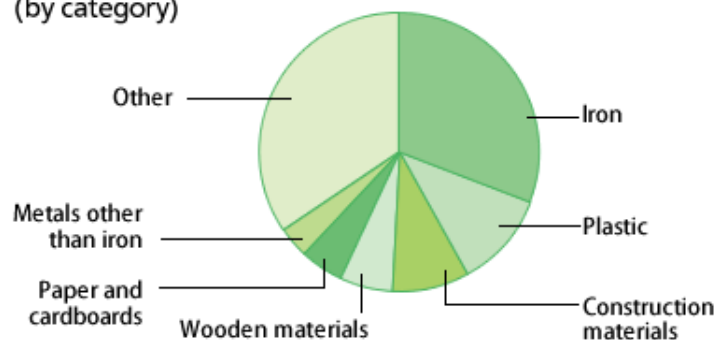
With swift economic growth advancing worldwide and bringing heightened attention to concerns over resources, the sourcing of new resources and materials will not only impact our global environment, but minerals resource depletion and materials pricing run-up will also become big issues that impact company 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 resources, 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 to zero. In addition to our efforts to reuse resources and eliminate waste in production processes, we have established 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.



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 in Fiscal 2013  
(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 require this resource, securing a stable supply, researching how to recycle it, and developing new recycling technologies for it, we used approx. 12 thousand tons of recycled plastic for our products in fiscal 2013. By proactively promoting the use of recycled resources, we have launched various products that incorporate recycled resources since 2012.

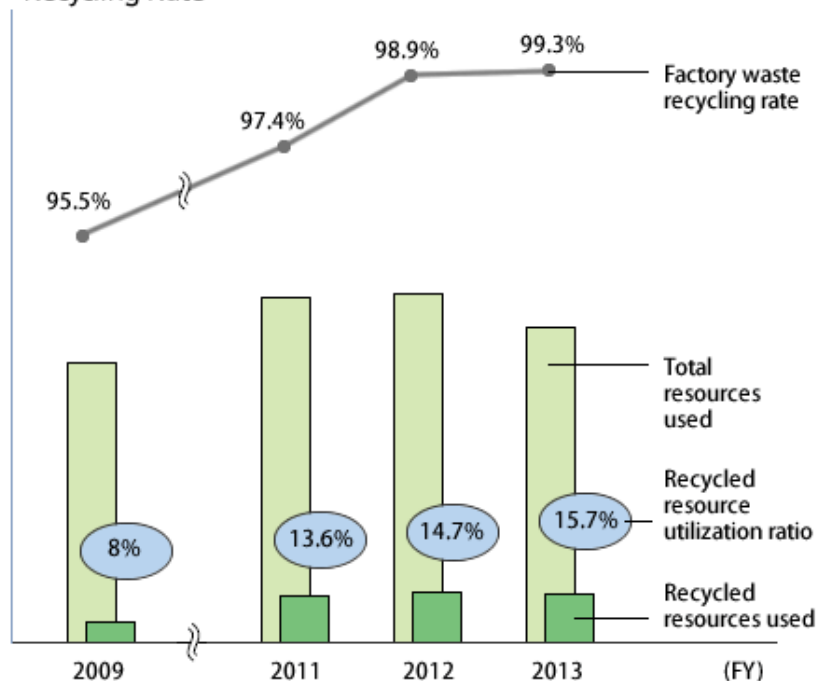
In addition, as for the recycling rate of waste at factories, we had traditionally set the different targets for Japan and countries outside Japan according to the relevant local infrastructures. However, with the recent global awareness of the importance of zero waste emission activities, we have been taking steps to improve the standard level of waste recycling across our entire Group since fiscal 2011.

Using fiscal 2009 as our baseline, we have set the recycled resource utilization ratio \*1 to 12% or more in fiscal 2013. As a result of further promotion, we exceeded our target by achieving 15.7%. In addition, against the fiscal 2013 target of 99% or more, we finally realized the factory waste recycling rate \*2 of 99.3%, which also achieved the target.

\*1 Recycled resource utilization ratio = Recycled resources used/Total resources used

\*2 Factory waste Recycling rate = Amount of resources recycled/(Amount of resources recycled + Amount of final disposal)

■ Recycled Resource Utilization Ratio and Factory Waste Recycling Rate



While enormous amounts of resources are being consumed in our day-to-day lives, these resources will not last forever. To make the best use of resources and to create a sustainable society, we began Recycling-oriented Manufacturing in fiscal 2011.

As a part of such efforts, we launched the Resources Recycling-oriented Product series in February 2012, under the concept of "product to product." This series consists of four major Panasonic products: refrigerators, washing/drying machines, vacuum cleaners, and rice cookers. With our unique recycling technology, resources are extracted from used products and reused in these four products to the fullest extent. Furthermore, we introduced an air conditioner model into the series in October 2012. The air conditioner uses a filter frame made of plastic recycled from refrigerators. The process from the refrigerator to the air conditioner is as below.

Panasonic aims at spreading 'better life' to people, while contributing to the global environment. We will continue to manufacture our products which make the best use of resources to work on solving environmental problems, and to develop our business at the same time.

▶ [Recycling-oriented Manufacturing](#)

▶ [Our Approaches to Resources Recycling](#)

### ■ Refrigerator to Air Conditioner



#### 1. Panasonic Eco Technology Center Co., Ltd. (PETEC)



PETEC



Staff member at work

PETEC is responsible for recovering resources from used home appliances (TVs, refrigerators, air conditioners, and washing machines). Home appliances provide a treasure trove of valuable resources. With the slogan "treasure hunting", we recover not only plastics but also metals such as steel, copper, and aluminum, as well as rare earth metals.

As one of our activities, we use our high-precision resin sorting system to instantly identify the type of recovered mixed plastics through near-infrared rays. The plastics are then sorted by type and restored for resource reuse.

Our mission is to extract as much resources as possible from used products and to preserve such resources for the future. PETEC will continue to work at increasing recycling efficiency.

▶ [PETEC](#)



Kazuyuki Tomita  
President  
Panasonic Eco Technology Center Co., Ltd.

## 2. Kato Resin Circulation Factory



Kato Plastic Recycling Factory



Staff members at work

In order to ensure the quality of Resources Recycling-oriented Products, recovered plastics are washed and their physical characteristics and material life recovered at the Kato Plastic Recycling Factory.

Although the plastics from PETEC maintains 99% purity, the presence of contamination of about 0.5% cannot be avoided. We further reduce this percentage of contamination in the cleaning process at the Kato Plastic Recycling Factory, restore the strength and the life span of the plastics, and use them as recycled materials whose quality is assured for manufacturing new products.

Recovered resources are meaningful only when reused appropriately. We will continue to work to create conditions that make recycled materials ever more usable in product manufacturing.



Yasuo Nishida  
Project Leader

Kato Plastic Recycling Factory Project, Advanced Manufacturing Process Development Center, Corporate Manufacturing Innovation Division, Appliances Company, Panasonic Corporation

## 3. Appliances Company



Appliances Company



Staff members at work



Appliances Company develops and manufactures household appliances as well as beauty and healthcare products. Recycled materials are actively used in manufacturing these products.

The high-purity recycled plastics from the Kato Plastic Recycling Factory are used for the filter frame of an air-conditioner model launched in October 2012. The plastic recycling technology that we have developed allows the product quality to be about the same as products using new materials.

It is the responsibility of manufacturers to make careful and efficient use of our finite resources. We will continue delivering Resources Recycling-oriented Products to assure comfort and well-being for the coming generations.



Yoshihisa Kuromiya  
General Manager  
Manufacturing Capability Enhancement Center,  
Corporate Manufacturing Innovation Division,  
Appliances Company, Panasonic Corporation

### Reducing Product Mass

To reduce the use of resources for production, we continuously look to reduce the weight of our products. We promote resource-saving activities such as making our products thinner and lighter and using less components. Our activities for designing better recyclable products will gain speed, from the standpoint of further resource recycling in the future.

#### Rice Bread Cooker: GOPAN

Since its launch in November 2010, GOPAN has won the support of society for providing a new cooking idea of baking bread from rice and for its contribution to boosting rice consumption. It has achieved domestic sales of 300 thousand units. \*1

In March 2013, the new GOPAN SD-RBM1001, a more compact, lighter, and easier-to-place version of the product was introduced. The previous product was equipped with two motors with different rotation speeds: one for grinding rice and the other for kneading. With the introduction of the industry's first \*2 inverter motor with a variable rotation speed, the new product realized a space reduction by approx. 25% and weight reduction by approx. 31%, compared to the SD-RBM1000 which was launched in December 2011.

\*1 Cumulative domestic sales volume from November 2010 to December 31, 2012.

\*2 As of January 23, 2013, for home bakery products in Japan (surveyed by Panasonic).



Rice bread cooker GOPAN  
SD-RBM1001

#### Condensing Unit (indoor freezer)

Condensing units generate a cooling source for commercial freezers and refrigerators as well as refrigerated showcases, and consists of a compressor, receiver tank, etc.

The indoor-type condensing unit LCU-NS251MVP, which has a 25 hp capacity, reduces installation space by 35%, cubic capacity by 36%, and weight by 43%. This is the result of reducing the number of compressors by increasing the compressor output, reducing receiver tank capacity, and creating a unit base structure that uses plating techniques.



Condensing unit  
LCU-NS251MVP

### 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 Appliance Recycling Law and the Law for Promotion of Effective Utilization of Resources in Japan, the WEEE Directive in the European Union, and recycling laws in some states in the United States. In China as well, a similar law has been taking effect since January 2011. In addition to complying with relative laws in respective countries, we strive to establish the most efficient recycling system in each country in view of its local recycling infrastructure.

#### FY2013 Results

Japan: Recycled approx. 113 thousand tons of four kinds of home appliances

Europe: Collected approx. 48 thousand tons of used electronic products

USA: Collected approx. 21 thousand tons of used electronic products

#### Japan

In response to the Home Appliance Recycling Law of 2001, which covers four specified kinds of home appliances, we established Ecology Net Co., Ltd. jointly with Toshiba Corporation, which manages a geographically dispersed recycling network through the effective use of existing recycling facilities nationwide. The recycling management company operates all the recycling-related services, which includes supervising 373 designated collection sites and 36 recycling facilities, on behalf of the "Group A" manufacturers (22 companies including Panasonic). Our recycling factories, Panasonic Eco Technology Center Co., Ltd. (PETEC) and Panasonic Eco Technology Kanto Co., Ltd. (PETECK), conduct unique research to improve our recycling processes for more efficient treatment of the four kinds of home appliances\*1 and for the recovery and supply of more resources. In fiscal 2013, we recycled approx. 113 thousand tons of the four specified home appliances.

\*1 Air conditioners, TVs, refrigerators/freezers, and washing machines/clothes dryers.

▸ [Overview of Recycling of Specified Home Appliances](#)

▸ [Panasonic Eco Technology Center Co., Ltd. \(PETEC\)](#)

#### Europe

Prior to the enforcement of the WEEE Directive in Europe in August 2005, Ecology Net Europe GmbH (ENE) was established by Panasonic in Germany in April of that year to build a high-quality and efficient recycling system in cooperation with a number of outstanding recycling companies. In March 2013, ElekSa was established in Wiesbaden as our site for collecting used electronic products, in an effort to further increase collection volumes.

ENE has now acquired a patent on an efficient LCD panel cutting method, developed jointly with our recycling partners. This technology is expected to cut down LCD panel TV disassembly time, and efforts are currently underway towards practical implementation.

In 2012, we collected approx. 48 thousand tons\*2 of used products covered by the WEEE Directive.

\*2 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.



ENE's own collection site ElekSa established in Germany

#### USA

Following the start-up of the state recycling law in the state of 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 nine recycling companies, each with a nationwide network, we are running a recycling program that covers the entire United States. At more than 1,800 collection bases, Panasonic collected approx. 21 thousand tons\*3 of used electronic products in 2012.

In September 2012, we participated in a program run by the US Environmental Protection Agency aimed at optimizing recycling, known as the Sustainable Material Management Challenge, and declared that 100% of used products collected will be recycled by third-party certified recyclers within three years. At present, 97% of our recycling service contractors have acquired third-party certification, and the figure is expected to reach 100% by the end of 2013.

\*3 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 was enforced in January 2011. Under this regulation, we established a joint recycling company in Hangzhou in November 2011 named Panasonic DADI DOWA Summit Recycling Hangzhou Co., Ltd., with Hangzhou DADI Environmental Protection Engineering Co., Ltd., DOWA Holdings Co., Ltd., and Sumitomo Corporation, and its operation is to start by the end of 2013. Based on the methods of advanced and practical technology and a contemporary control system that have been developing within the recycling industry in Japan for more than a decade, our new company will engage in the collection, disassembly, and sales of recycled materials extracted from used appliances in accordance with the above regulation 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.



Main entrance of Panasonic DADI DOWA Summit Recycling Hangzhou Co., Ltd.

## Asia Pacific

An increasing number of countries are moving toward legislation governing recycling also in the Asia Pacific region.

In conjunction with the enforcement of a recycling law in India in May 2012, we have built a network of collection sites using brand shops and authorized service centers.

Following the enforcement of relevant laws in Australia in July 2012, we are engaged in recycling activities through a take-back recycling scheme that covers appliances including TVs and PCs.

In Singapore, we are cooperating with retailers and recycling companies to support the recycling efforts led by the local government.

Similarly, we are continuing to talk with the governments and industrial sectors of Vietnam, Malaysia, and Thailand towards having optimized legislation in the area.

## Expansion and Reinforcement of Home Appliance Recycling Plants

It is important to recover resources from used products as much as possible to expand usage of recycled resources. For this reason, we are working together with related divisions inside the company to develop and introduce more efficient recycling systems at our recycling plants.

### Increase in Recovery of High-Purity Resources

In order to increase the volume of high-purity resources recovered, PETECK \*4 expanded its recycling facility with additional construction in March 2013.

Specifically, the high-precision resin sorting system introduced at PETEC was expanded to increase recovery of high-purity resources. A new material recycling building was built, with a urethane fuel conversion facility which enables the urethane used for refrigerator insulation to be converted into high-calorie fuel. Also, a small grinding and sorting line was installed, where aluminum and copper composite parts such as air conditioning heat exchangers are processed for more recovery and effective use of materials.

\*4 Joint recycling plant with Mitsubishi Materials Corporation.



High-precision resin sorting system additionally installed at PETECK



Resources recycling building newly built at PETECK



## In Step With the Evolution of Home Appliances

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Represented by the CFC-free refrigerator and the tilted drum washing machine, home appliances are evolving and the structures and materials used in products are changing year by year. Similarly, it is important for recycling plants to adapt to these changes with versatility and engage in efficient material recycling.

Because of the use of various types of fluorocarbons in refrigerants and insulation material foaming, sorting is necessary before placing refrigerators into the processing line. PETEC renovated its refrigerator line in fiscal 2012 to enable mixed input without sorting, resulted in a reduction in line switching time and man-hours.

Chubu Eco Technology (CETEC) \*5 built a new plant in fiscal 2013. Equipped with lines dedicated for CFC-free refrigerators and washing machines, the time required to switch between products to be processed and the time for processing tilted drum washing machines have been dramatically reduced.

\*5 Joint recycling plant with Mitsubishi Materials Corporation.



New refrigerator line at PETEC



New plant at CETEC

### Products Using Recycled Resources

In February 2012, under the concept of “product to product,” we launched the “Resources Recycling-oriented Products” series, which uses resources extracted from used products. This series consists of four major Panasonic products: refrigerators, washing/drying machines, vacuum cleaners, and rice cookers. Glass wool (glass fiber) recycled from cathode-ray tube (CRT) televisions is used to make vacuum insulation material for our refrigerators. We also utilize plastics that are recovered at our recycling plants, such as those recovered from refrigerators and air conditioners, to manufacture new washing/drying machines, vacuum cleaners, and rice cookers.

Furthermore, an air-conditioning unit using recycled plastic was introduced in October 2012. Polystyrene (PS) recovered from used home appliances are processed for reuse and used in the filter frame for air-conditioning units.

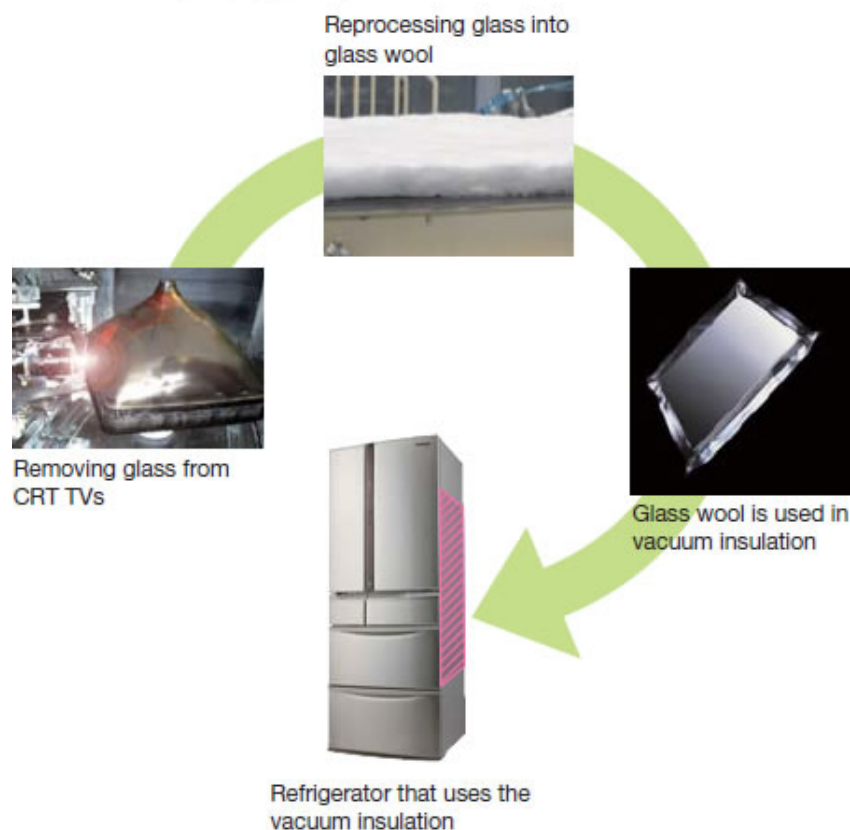
- ▶ [FOCUS : Resources Recycling-oriented Products](#)
- ▶ [Our approaches to Resources Recycling](#)

### Utilizing Glass From Used CRT TVs

Glass makes up about 60% of the total weight of CRT TVs. Until recently, the part of the recycled CRT of TVs was 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 have 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 to make the vacuum insulation materials for refrigerators. First, a laser is used to remove the CRT from recovered TVs, and after crushing and dry scrubbing, the glass is transformed into cullets (bits of glass). The cullets are then melted at once in a temperature exceeding 1,000°C and subjected to micro-fabrication of approx. 4 µm. Reusable glass wool is created at the end of this process. This is the first case for a home appliance manufacturer in Japan to recycle CRTs for use in the production of other home appliances.

#### ■ CRT TVs to Refrigerators



## Use of PET Bottle Caps

As part of the drive to utilize PET bottle caps as a recyclable resource, we are engaged in the Eco Cap Activity.

This activity is underway at about 80 sites in our Group, and the caps from used PET bottles are being gathered at collection boxes within each site. White polypropylene (PP) is extracted from the collected caps and processed to gain a strength and quality same to that of new materials. This is used as a vegetable chamber sealing plate inside refrigerators.

Utilizes plastics  
from PET bottle caps



Vegetable chamber sealing plate inside refrigerators



Vegetable chamber

Refrigerator NR-F557T equipped by the vegetable chamber sealing plate

## Use of Plant-derived Plastic

In June 2012, a group of household kitchen and bathroom products using plant-derived plastic was introduced for the first time in the industry. \*1

In the past, the use of plant-derived plastic had been difficult for such products, since they require outstanding durability and water resistance. Using our own composite technology, we succeeded in creating plant-derived plastic with a uniform constitution and high density cross-linked structure that excels in water resistance. With the strong resistance of such plastic parts to water penetration, they are now as resistant to wear and identical in product performance to existing products.

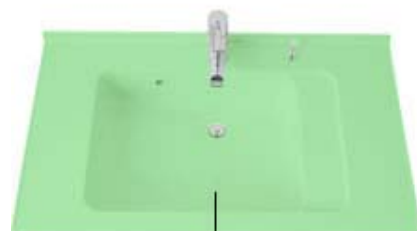
The plant-derived plastic is being used in the rim of the A-La-Uno S toilet, a sink counter top for the C Line and M Line bathroom sink series, artificial marble (printed counter top) material for the Living Station kitchen system, and as a ceiling sheet material for the Cococino bathroom system. The use rate is currently at 2–5% but is expected to rise in the future.

\*1 As of September 2012 (surveyed by Panasonic).



Utilizes plant-derived plastic

A-La-Uno S toilet CH1101



Utilizes plant-derived plastic

C Line bathroom sink standard type

## 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\*1 goal by reducing the amount of final disposal to nearly zero by fiscal 2013.

Greater efforts in China, the rest of Asia, and Europe have resulted in a factory waste recycling rate of 99.3% for fiscal 2013, exceeding the 99% target.

\*1 Panasonic's definition: Recycling rate of 99% or higher. Recycling rate = Amount of resources recycled/(amount of resources recycled + amount of final disposal).

## Measures to Reduce the Generation of Waste

As a means to reduce the generation of waste, we are fostering resource-saving product design. In our production activities, we are engaging in resource loss reduction, employing our own unique material flow analysis methods. We consider materials that do not become products and excessive use of consumables as resource losses, and make the material flow and lost values for each process visible in order to resolve the issues with the involvement of the design, manufacturing, and other relevant business divisions. In fiscal 2013, company-wide efforts started and succeeded in cutting resource loss in target processes and materials by 25%. In addition, the Resource Loss Navigation system was developed to automatically display information to help reduce resource losses. In the future, this system will be utilized to promote further reductions in resource losses.

## Measures to Reduce the Amount of Final Disposal

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

Because waste recycling rates in our overseas factories lag behind those in Japan, we have worked to improve the average level of recycling activities by sharing information within and between regions outside Japan. Specifically, in addition to accelerating the information sharing on waste recycling issues between our local factories and group companies in Japan, we also promote the sharing of excellent examples and know-how among our factories across regions by utilizing BA Charts\*2 prepared by each region, following our long-standing approach toward CO<sub>2</sub> reduction activities. Additionally, our specialists have visited 52 of the Group's factories with large waste disposal amounts and low recycling rates to review the state of waste management and propose solutions that are tailored to the local recycling and waste management infrastructure.

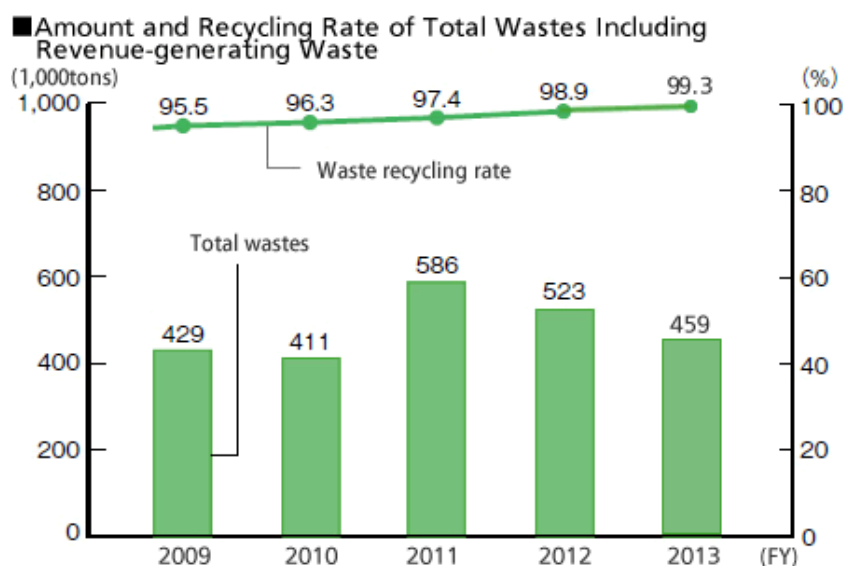
At Panasonic Appliance Refrigeration Devices Singapore Pte., Ltd. (PAPRDSG), it has implemented measures to reuse waste sand generated by cast components for compressors. In the past, waste casting sand could not be easily recycled and had largely been disposed of in landfills in accordance with local laws. Referencing recycling techniques developed in Japan, PAPRDSG explored local companies capable of recycling waste molding sand, and through collaboration with a good recycler, 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% compared to fiscal 2011.



Road pavement blocks made of foundry waste sand and road paved with the blocks

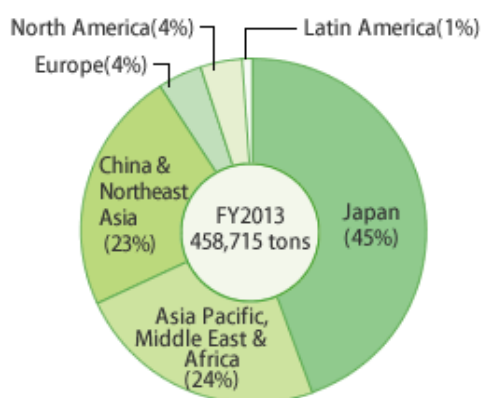
To continue these successes, we must develop human resources with expertise in waste management. We have been providing regular training on waste management in each region, and in fiscal 2013, training sessions held in Asia and Europe were attended by approx. 880 officers responsible for waste management.

\*2 BA Chart: Chart that provides a comparison between before and after the implementation of waste reduction and recycling measures.

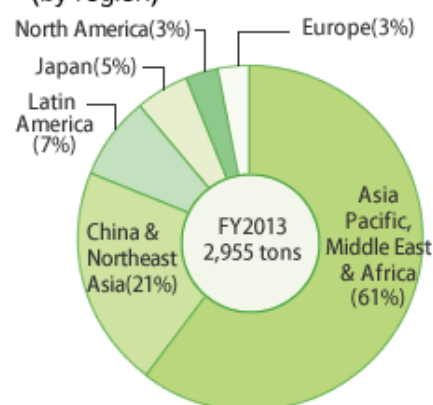


Note: SANYO Electric at that time and PLD not included in fiscal 2009 through 2010.

■ Breakdown of Total Wastes Including Revenue-generating Waste (by region)



■ Breakdown of Final Disposal (by region)



Breakdown of Total Wastes Including Revenue-generating Waste for Fiscal 2013 (by category)

(tons)

Items	Total wastes	Recycled	Final disposal
Metal scrap	172,067	171,311	314
Paper scrap	52,084	50,984	124
Plastics	48,228	44,364	169
Acids	56,371	46,371	7
Sludge	25,022	20,154	452
Wood	24,103	22,109	16

Items	Total wastes	Recycled	Final disposal
Glass/ceramics	10,936	10,696	155
Oil	20,403	15,935	87
Alkalies	28,036	20,426	4
Other *3	21,464	18,770	1,627
Total	458,715	421,121	2,955

\*3 Combustion residue, fiber scraps, animal residue, rubber scraps, debris, ash particles, items treated for disposal, slag, infectious waste, PCB, waste asbestos (only in Japan).

## Initiatives for Water Resource Conservation

It is said that available fresh water is only about 0.01% 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 control and cyclic use. In fiscal 2012, we enhanced one of the criteria, water conservation, in our Green Product accreditation criteria, and speed up the development of industry-leading products that contribute to water saving.

### Triple Sensor Faucet

This faucet, installed in a kitchen system, has a water-saving sensor that reacts to an object or a hand approaching close to the faucet mouth and triggers the water to run without directly touching the faucet. When the object moves away, the water stops. The faucet mechanism that controls wasteful running water has been used professionally in hotels and railway station restrooms. The device has now been adapted for the home kitchen, contributing to water conservation. When compared to washing dishes by hand, for example, approx. 6 liters of water can be conserved per day. \*1

\*1 In the case of washing dishes using the ECONAVI mode, twice a day for a family of three.



Triple sensor faucet

### ■Hand Washing While Saving Water



Sensor triggers water flow when hand or object comes close to the faucet



Stops when object moves away

### Ice Cube Maker

In the conventional ice-making process of a professional icemaker, water is poured into the machine to make ice. When moving the ice from the icemaker to the ice storage, a lot of water is used to prevent re-sticking. Now, the water that does not actually become ice has been reduced to 1.38 liters on average, significantly lowering the quantity of water necessary to make 1 kg of ice. This represents water conservation of approx. 69% \*2 on average compared with our 2000 model.

\*2 At ambient temperature of 20°C, water temperature of 15°C, and power source of 100 V 50 Hz.



Ice cube maker SIM-S2500



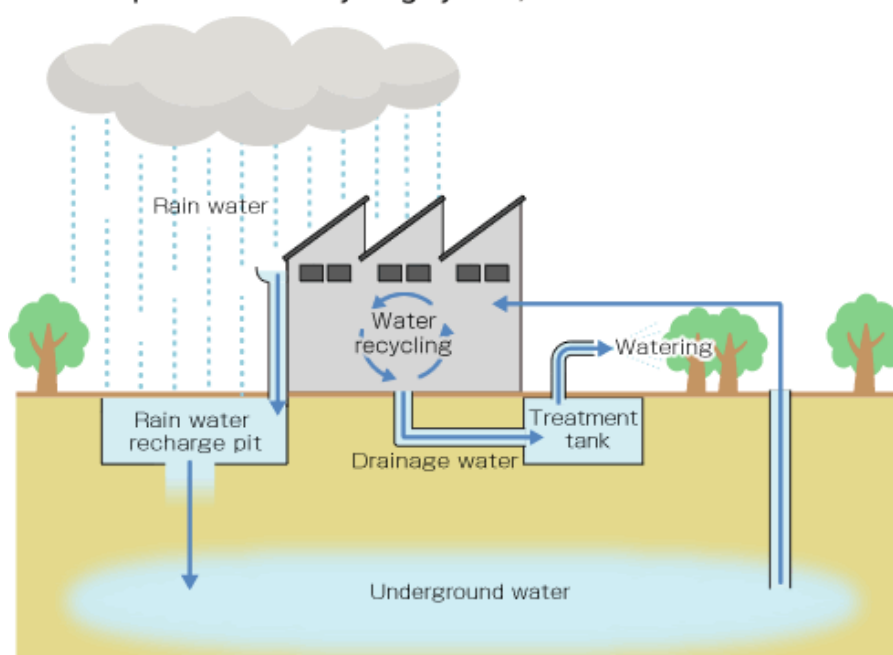
## Initiatives for Water Resource Conservation

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 2013, despite the decrease in production, water used at factories per basic unit of production improved by 0.7% compared with fiscal 2012.

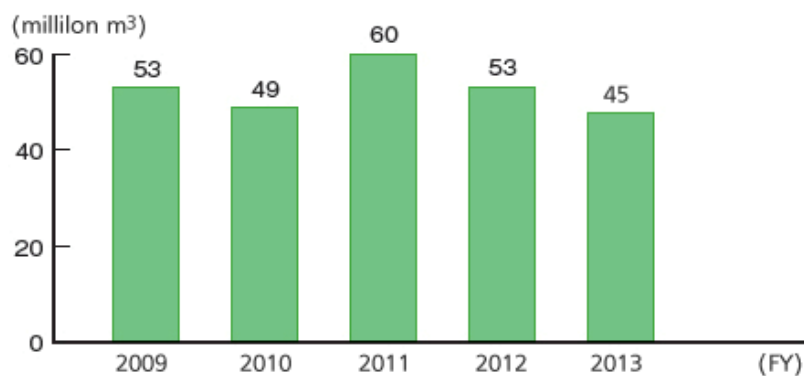
Technopark of Panasonic India Group is designed to recycle 100% of the water used at the plant as part of the sustainable use of water resources. Ground water is used inside the plant and undergoes wastewater treatment after use. Rather than discharging the water into sewage or rivers, it is reused as toilet flushing water and for lawn sprinkling, and is recirculated again as ground water. Also, the necessary ground water level for the land area has been calculated to prevent water consumption beyond what is necessary, thereby contributing to ground water preservation.

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 priority regions such as China and other Asian countries and across the world. We will also designate some of our facilities as model factories for water saving across the Group.

### ■Technopark Water Recycling System, Panasonic India



### ■Amount of Water Consumption



Note: SANYO Electric and PLD at that time not included in fiscal 2009 through 2010.

### Breakdown of Water Consumption (by region)

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

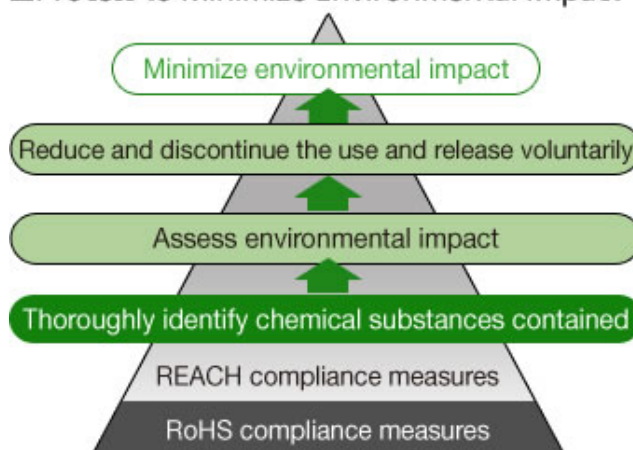
Region	Municipal water/industrial water	Rivers/lakes	Groundwater	Consumed	Discharged
Japan	1,209	17	1,937	3,163	2,573
North America	42	0	0	42	34
Latin America	0	0	13	14	0
Europe	12	0	5	18	18
Asia Pacific, Middle East & Africa	468	4	61	533	360
China & Northeast Asia	729	0	14	743	448
Total	2,461	22	2,030	4,513	3,432

## Initiatives to Minimize the Environmental Impact of Chemical Substances

As represented by the enforcement of the REACH regulation \*1 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 lifecycles. 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.

\*1 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, which prohibit or specify certain substances for management in terms of our products and factory activities. Companies in the Panasonic Group are requested to follow the Guidelines, and suppliers are also requested for support as necessary. In fiscal 2013, we added Level 3 to the Chemical Substances Management Rank Guidelines to review the timing for the prohibition of further substances that may adversely affect humans and the environment, in addition to the current and forthcoming prohibitions.

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

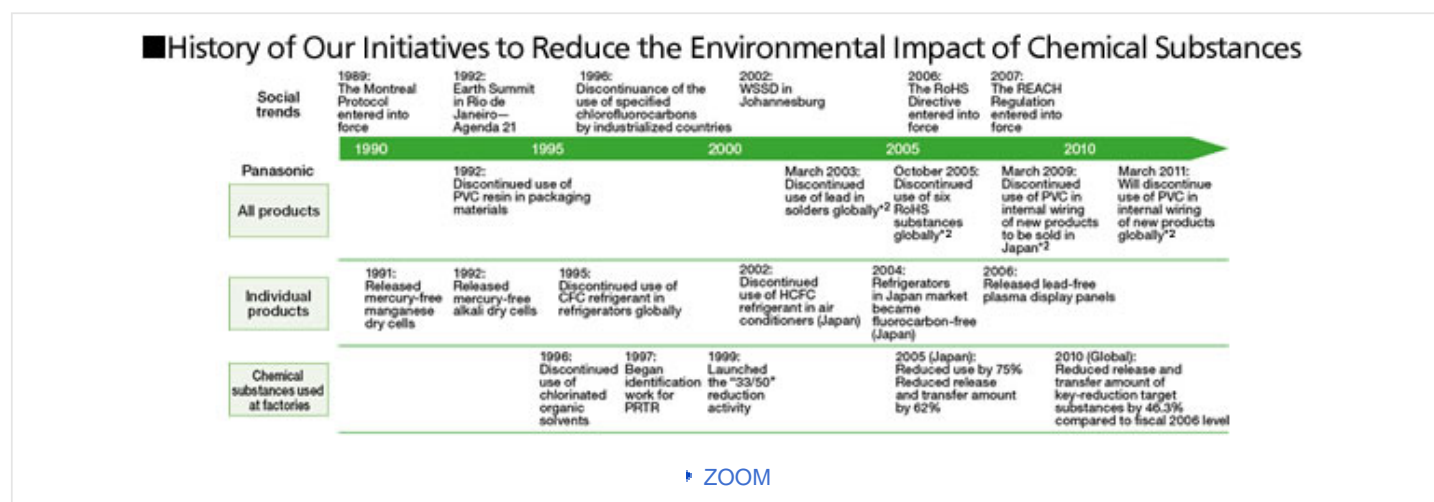
Rank		Definition
Prohibit	Level 1	(1)A substance contained in products that is prohibited by existing laws and regulations; or a substance where the upper limit of concentration is specified. (2)A substance that will be prohibited in products by laws and regulations or where the upper limit of concentration will be specified within one year of the revision of these Guidelines.
	Level 2	(1)Substances other than those specified as the Level 1 Prohibited Substances that will be prohibited in products after a certain period by a treaty, law, or regulation. (2)Substances that are prohibited in products by the Panasonic Group prior to the effective period specified by a treaty, law, or regulation. (3)Substances whose use is voluntarily restricted by the Panasonic Group.
	Level 3	These substances, none of which are prohibited by the Panasonic Group at present, are those reviewed for prohibition by legislation etc., and the clarification of substitution-related issues as well as the timing for prohibition is reviewed by the Panasonic Group in light of future legislation trends.

Rank	Definition
Manage	Substances whose consumption needs to be monitored and for which consideration needs to be given to human health, safety and hygiene, adequate treatment, etc. The intentional use of these substances is not restricted, but their use and contained concentration must be monitored.

## Chemical Substances Management Rank Guidelines (for factories)

Rank	Definition
Prohibit	<p>Use of the following substances should be immediately discontinued:</p> <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 Industrial Safety 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>

### Chemical Substances Management Rank Guidelines



\*2 Excluding applications where the quality such as safety cannot be ensured, or applications where the material is designated by laws and regulations.

## 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. In addition, for substances that are prohibited in products in major developed countries due to legislation such as the European RoHS Directive, we specify prohibited substances to globally ensure that they are not used or contained in our products, except in certain cases where substitution of the substances are infeasible. Moving forward, we will conduct environmental impact assessments for managed substances contained in our products, take steps to reduce the use of substances where the impact on human health and the environment cannot be ignored, and create plans to eventually prohibit the 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 on 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 400 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.

Since fiscal 2005, we have been using a chemical substance management system, GP-Web, to gather data concerning the chemical substances contained in the components and materials for our products from our suppliers. From July 2009, this data has been collected from more suppliers in a common format by the Joint Article Management Promotion Consortium (JAMP).

Because only the manufacturer of a certain part knows what substances are contained therein, it is necessary to request information not only to our suppliers but also to further upstream suppliers who do not have direct transactions with Panasonic. In order to ensure that the communication of this information flows efficiently, we have created an online e-learning site regarding chemical substance management in Japanese, Chinese, and English. In accordance with the update of the JAMP format in January 2012 in light of the recast of the European RoHS Directive, we have also updated the e-learning site in March 2012 and are providing explanations to suppliers.

#### [JAMP](#)

Companies that procure electronic components may need to have a full understanding of the substances contained in the components at the point of selection or usage in order to adhere to the EU RoHS Directive and REACH regulation. Particularly, as the REACH Substances of Very High Concern (SVHC) List is updated every six months, those companies expect their suppliers to provide the latest substance data to demonstrate compliance with the list.

Also, as a company supplying electronic components to other companies, we have published a table of RoHS and REACH compliance status on our website since November 2012 so that our clients can obtain relevant chemical substance information from us quickly and efficiently. The table covers our RoHS Directive compliance information and the substances designated in the REACH SVHC List for all our major generic electronic components.

#### [Table of RoHS and REACH compliance status](#)

Further, in addition to confirming the chemical substance data, we confirm the chemical substance control efforts at our suppliers. In fiscal 2013, we conducted the Green Procurement Survey to ascertain the efforts of our suppliers in reducing environmental impact. One of the focuses in the survey is thorough control of chemical substances. Details of the survey can be found in the Green Procurement Standards.

#### [Green Procurement Standards](#)

## Assessing the Impact of Chemical Substances

Scientifically identifying the impact on human health and the environment of products containing chemical substances is vital to the development of 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 phthalate ester contained in power supply cables and ceramic fibers used in some models of professional microwave ovens. As part of our efforts to comply with the EU REACH regulation which requires preparing information for the safe use of products containing SVHC we have created and disclosed a safety assessment document for both cases. In each case, exposure was considered to be nominal with little concern for any impact on human health.

#### [Management of Chemical Substances in Products](#)

## Reducing the Use of PVC Resin

Polyvinyl chloride (PVC) is a material of concerns to the generation of hazardous substances from inappropriate disposal, as well as the harmful effects of certain additive agents (phthalate 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 switched our new products launched from April 2011 to non-PVC.

### List of Our PVC-free Products\*3 (as of the end of June 2013)

PVC-free Product Description	Model Numbers
Cellular phone	P-02E, and 5 other models
Ventilating fan	FY-17C7, and 28 other models



Session held for our Thai suppliers

PVC-free Product Description	Model Numbers
Blood pressure monitor	EW-BW50, and 5 other models
Men's shaver	ES6500, and 4 other models
Nail polisher	ES-WC20, and 1 other model
Pedicure care heel buffer	ES2502
Toothbrush	EW-DS15
Nose hair trimmer	ER-GN10, and 2 other models
Ear hair trimmer	ER402
Baby hair trimmer	ER3300
Household body composition balance monitor	EW-FA71, and 1 other model
Eyelash curler	EH-SE50, and 5 other models
Ladies shaver	ES2235, and 2 other models
Epilator	ES2011, and 2 other models
Facial trimmer	ES2105, and 5 other models
Step counter	EW-NK52, and 2 other models
Low-frequency muscle stimulator	EW-NA11
Electric inhaler	EW-KA30
LED panel display unit	LNP193074, and 3 other models
Office/business lighting equipment	LGBJ71000, and 2 other models
Earth leakage breaker	BKS23020NT
Time switch/box type	TB311, and 1 other model
Ballast cabinet	BNDE4101VN
Network adapter	BNZY8210NA
Fiber to the home system	AD-F1108/AD-F1211
Optical feeder AMPlifier	EA-WD0DL210
Multi-branch repeater	AD-4607RULEA
Evolved node base station system	EA-B1BDE
PCS (1.9GHz) RRH (TX25MHz)	EA-L19RHAA0
Underground optical feeder system	EA-WEBASAA

PVC-free Product Description	Model Numbers
800MHz transceiver duplexer unit	EA-L80TRA70/80
Multi-drop optical feeder	EA-WFBASAA
AWS(2.1GHz/1.7GHz) transceiver duplexer unit	EA-LAWTRAA0
LED flash module	LNU000103B, and 1 other model

**\*3** Excluding a resin binder containing PVC-vinyl acetate copolymer (ink, etc.). In referring to "PVC-free" here, a main body of each model is covered, and some of the peripheral accessories contain PVC.

## 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 the level of fiscal 1999, we reduced the amount of chemical substances used by 81% and also reduced the release and transfer of chemical substances by 60% in fiscal 2006. Particular attention was placed on substances that have a large amount of release and transfer since then, and as a result we reduced the amounts of key reduction-target substances by 46% 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 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, Human Environmental Impact, **\*4** by specifying a "hazardousness factor" for each substance.

Based on data in fiscal 2011, we developed a plan to reduce the Human Environmental Impact by 3.5% in fiscal 2013. We improved the efficiency of removal/deodorization equipment, improved yields, promoted recycling, introduced substances with low solvents and hazards, and improved processes including reviewing the amount of substances used or the number of times for washing, and these efforts enabled us to reduce the Human Environmental Impact by 19.7%.

**\*4** Human Environmental Impact = Hazardous factor x Release and transfer amount.**\*5**

**\*5** Release amount: Includes emission to air, public water areas, and soil.

Transfer amount: Includes transfer as waste and discharge into the sewage system. Recycling that is free of charge or recycling where Panasonic pays a fee for treatment under the Waste Management Law is included in "Transfer." (Different from the transferred amount reported under the PRTR Law.)

## Approach to the Management of Substances Based on the Chemical Substances Management Rank Guidelines (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 the assessment target:

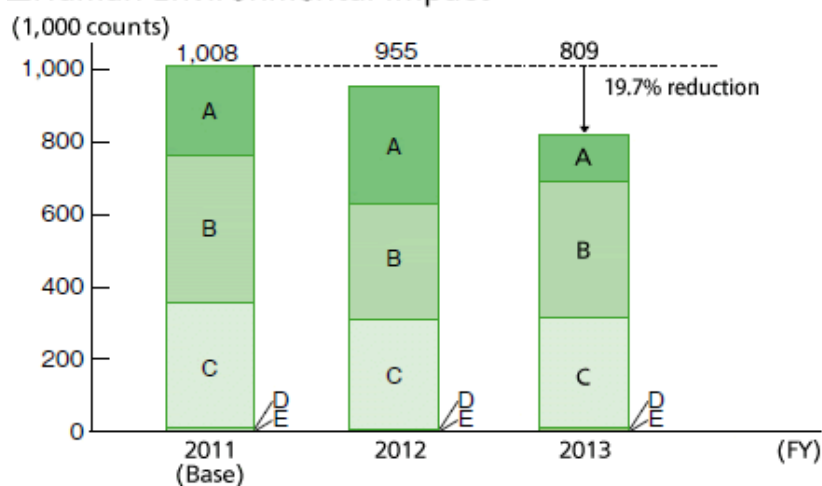
- Hazards to human health: Carcinogenicity, mutagenicity, reproductive toxicity, and acute toxicity
- Hazards to the environment: Substances that might cause ecological toxicity, ozone layer depletion, global warming, or generate photochemical oxidants



## Classification of Hazards

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

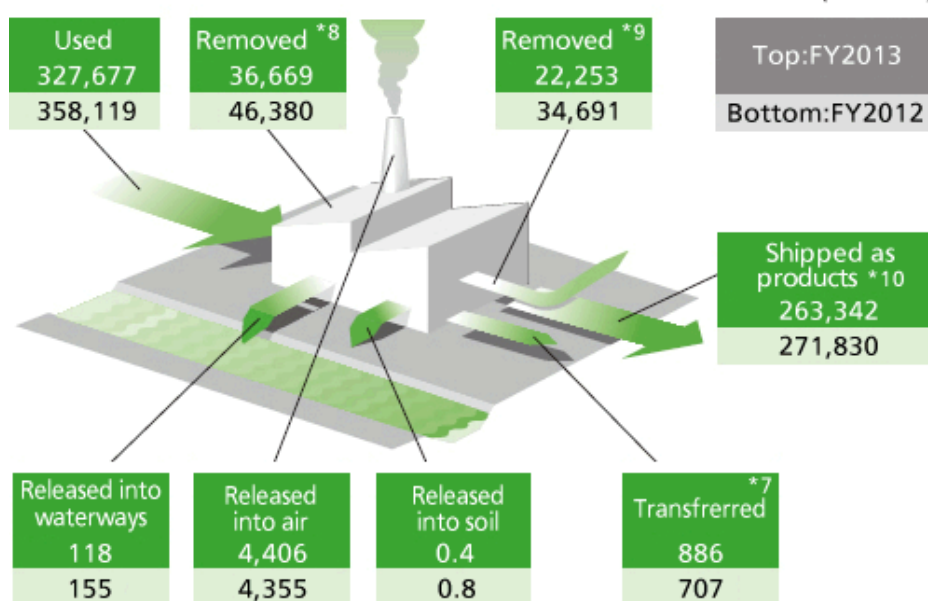
### Human Environmental Impact



Note: Overseas sites of former SANYO Electric not included in fiscal 2011 through 2012.

### Material Balance of Substances Requiring Management\*6 in Fiscal 2013

(Unit: tons)



\*6 Based on the Chemical Substances Management Rank Guidelines (for factories). Including the substances in the Pollutant Release and Transfer Registers.

\*7 The amount of substances converted into other substances through neutralization, decomposition, or other chemical treatment within the factory.

\*8 The amount of substances recycled with revenue, as well as those recycled free of charge or with any payment.

\*9 The amount of substances that have been changed to other substances as a result of chemical reactions, and/or those that are contained in or accompanied with products and shipped out of factories.

\*10 Includes substances transferred as waste, as well as those discharged into the sewage system. Recycled amount which 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.)

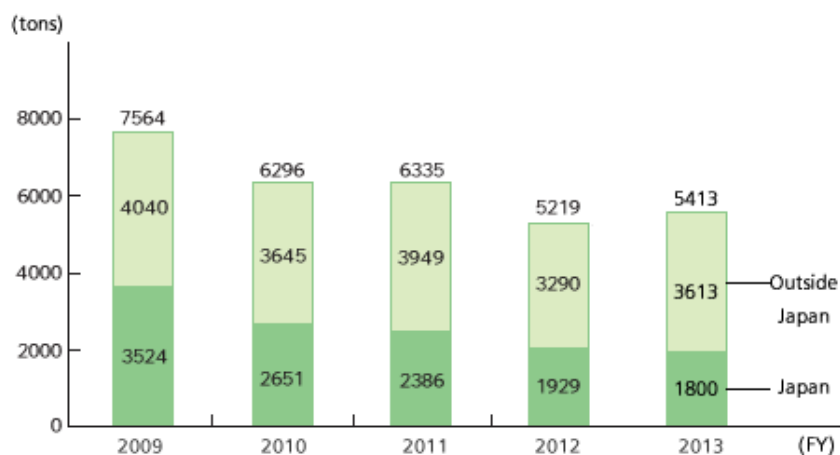
Note: Overseas sites of former SANYO Electric not included in fiscal 2012.

## Results of Surveys on Substances Requiring Management in Fiscal 2013

(tons)											
Chemical substances	PRTR category	Used	Total amounts released and transferred	Released				Transferred	Removed	Recycled	Shipped as products
				Released into air	Released into public waterways	Released into soil	Landfill				
Carbon dioxide		1127.9	1126.8	1126.3	0.0	0.0	0.0	0.5	0.0	0.1	1.0
Isopropyl alcohol		2571.7	779.4	713.7	1.5	0.0	0.0	64.2	123.2	1572.7	96.4
Ethanol		492.3	403.0	383.0	0.3	0.0	0.0	19.6	18.1	55.8	15.4
Xylene	1-080	341.6	232.8	229.5	0.0	0.0	0.0	3.3	71.8	17.0	19.9
cyclopentane		1350.8	232.0	231.0	0.0	0.0	0.0	1.1	0.0	0.0	1118.7
Toluene	1-300	1030.7	206.5	199.3	0.0	0.0	0.0	7.2	618.6	158.5	47.1
Methyl ethyl ketone		3656.3	177.2	174.8	0.0	0.0	0.0	2.3	2820.7	515.1	143.3
Methanol		4047.1	158.8	156.3	0.2	0.0	0.0	2.3	2517.7	843.3	527.2
Fused silica		2140.9	154.9	0.3	0.0	0.1	0.0	154.6	5.0	441.1	1539.8
Acetone		2014.3	145.7	143.3	0.0	0.0	0.0	2.4	1509.4	343.7	15.5
Styrene	1-240	5732.5	78.9	74.7	0.0	0.0	0.0	4.2	745.5	92.3	4815.9
Ethylene glycol mono-n-butyl ether		100.9	78.8	78.0	0.0	0.0	0.0	0.9	5.4	13.9	2.8
n-butyl acetate		266.9	76.1	75.4	0.0	0.0	0.0	0.7	110.3	79.5	1.0

Chemical substances	PRTR category	Used	Total amounts released and transferred	Released				Transferred	Removed	Recycled	Shipped as products
				Released into air	Released into public waterways	Released into soil	Landfill				
N-Methyl-2-pyrrolidone		3180.9	73.1	4.4	0.0	0.0	0.0	68.7	7.4	3099.5	0.8
1 - butanol		174.3	71.1	35.8	0.0	0.0	0.0	35.3	12.6	69.1	21.5
Manganese and its compounds	1-412	28242.6	69.6	0.7	0.3	0.0	0.0	68.6	0.2	199.1	27973.7
Methyl isobutyl ketone		82.0	64.4	62.3	0.0	0.0	0.0	2.2	7.1	8.9	1.6
Phosphoric acid		390.1	63.3	3.9	1.2	0.0	0.0	58.2	253.0	64.2	9.6
Ethyl acetate		70.4	53.4	52.4	0.0	0.0	0.0	0.9	2.2	3.8	11.1
Calcium hydrate		3598.9	52.8	0.0	34.7	0.0	0.0	18.1	2370.0	745.9	430.2
Other PRTR substances		122240.2	395.5	244.9	46.9	0.0	0.0	103.7	3401.7	3472.2	114970.9
Other substance groups		144823.6	718.8	416.4	33.0	0.3	2.2	266.9	22068.6	10457.7	111578.5
Total		327677.0	5412.9	4406.1	118.1	0.4	2.2	886.0	36668.6	22253.2	263342.2

■ Release/Transfer of Substances Requiring Management



Note: A Number of substances were added to the scope of the Management Rank in fiscal 2011. Former SANYO Electric is not included in fiscal 2009 through 2010. Overseas sites of former SANYO Electric are not included in fiscal 2011 through 2012.

### 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 significant damage at an unprecedented speed. Accordingly, corporate enterprises are 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.

### Promoting Biodiversity Initiatives in Our Business Activities

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 Land Use

Green areas in our business sites can potentially contribute to conserving biodiversity in that area. Particularly, in urban areas, hardly any natural environments where wild animals can live and breed remain. If our green areas retain some of the plants and watery environment, such areas would become a precious environment for a variety of living organisms, even if the area was small. In terms of biodiversity, these green areas take on the roles of reinforcing the ecological network and the protecting threatened wild fauna and flora. An ecological network refers to the organic relationship between ecological spaces such as the greenery and waters where a variety of creatures live and breed. The greenery in our sites helps expand the overall space where wild animals including birds, butterflies, and dragonflies live, as they can hop between the green areas dotted in the area. In addition, protecting wild fauna and flora in local areas is an activity with the help and advice of experts, to preserve endangered species designated by the Ministry of the Environment or local government that are deemed to be disappearing from that area. The following articles introduce the activities being carried out in our business sites.

#### From Lake Biwa to Rivers, Factories, and Woodland - Taking the Wide-area Ecological Network Initiative (Kusatsu Factory of Appliances Company in Shiga Prefecture, Japan)

The Kusatsu Factory of Appliances Company is the major manufacturing site of our home appliances, including refrigerators and air conditioners. Since the factory's declaration to lead the way in 'eco ideas' for products, manufacturing, and society as 'eco ideas' Factory Biwako in June 2008, it has been undertaking environmental initiatives as the group's model eco-conscious factory. In the 'eco ideas' Declaration October 2011, the factory announced it would contribute in conserving biodiversity as its key environmental effort. Re-arranging the pond and green areas within the factory premises as the Kyozon-no-mori Forest (Forest of Coexistence) to suit the wild fauna ecology in the area, we are attempting to create an organic link with the surrounding woodlands and rivers to form a wide-area ecological network that covers Lake Biwa and the woodlands surrounding the nearby residential area.

From fiscal 2012 to 2013, surveys by experts were conducted to identify the living organisms within the premises. As a result, it was found that a total of 580 species of organisms were identified, including 338 species of plants, 8 species of mammals, 35 species of birds, 1 species of amphibian, 4 species of reptiles, 177 species of insects, and 22 species of aquatic animals. The surveys revealed the following three particularly important points:

- The green areas and pond in the Kusatsu Factory are organically linked with the surrounding woodlands and rivers.
- Many rare living organisms were found within the premises, including those in the Red Data List of the Japanese Ministry of the Environment and Shiga Prefecture.
- Raptors and large mammals that are ranked in the higher levels of the ecological pyramid were also observed. This suggests that the Forest contributes to sustaining a relatively large-scale ecosystem.

The surveys observed foxes and raccoon dogs, which mainly live in woodland, move within a wider area. They also discovered rhinogobius kurodai, a type of domestic goby fish, living in the waters within the Kusatsu Factory premises. These observations prove that the Forest has established a link with the surrounding woodlands and rivers. Another threatened species observed in the surveys was the green-backed heron. Not only were the herons observed, it was found that they even breed in a green area near the Kyozon-no-mori Forest, which again shows that these woodlands play a very important role in



Appliances Company's Kusatsu Factory in Shiga Prefecture



Raccoon dogs appeared in the Forest during the night



biodiversity conservation. The surveys identified a wide range of animals that spans different levels of the ecosystem. Those in the higher ranking levels include falcons and other large birds such as grey herons and green-backed herons, as well as large mammals such as raccoon dogs and foxes. The middle ranking animals recorded are Japanese rat snakes and small raptorial birds such as the shrike, followed by lizards, frogs, and insects as the lower ranking organisms. Finally, more than 300 species of plants were observed. These plants support all the living organisms directly and indirectly. The Kyozon-no-mori Forest is the green that provides the rich ecosystem cradling many creatures.

We are very aware of the significant role of the green space in Kusatsu Factory in the biodiversity of the area, and will continue to strive for biodiversity conservation, working closely as part of the regional ecological strategy carried out by Shiga Prefecture and Kusatsu City.

Young green-backed herons, a threatened species in Shiga Prefecture



A Japanese rat snake living in the Forest of Coexistence

### Protecting Rare Fish and Plants Disappearing in Osaka Eco Solutions Company Head Office (Kadoma City, Osaka, Japan)

In March 2009, a biotope was built to help living organisms live more easily in the premises of Kadoma site where the Eco Solutions Company head office is located. From the stage of planning of the biotope, Osaka Prefecture University has provided us with expert advice and instructions. The principle was to not introduce any species other than soil and domestic plants to the biotope, so that it would allow us to monitor how many and what kind of living organisms the biotope would populate. The biotope is maintained by volunteers among the corporate staff members to promote participatory activities by employees towards biodiversity. In the following spring after the biotope was built, spot-billed ducks nested and ducklings were born. These chicks contributed the biodiversity awareness among the staff members by attracting their attention to the biotope as a place where they can learn about animals in an accessible manner.

In order to further contribute to local biodiversity conservation, we started preserving hemigrammocypris rasborella (a fresh water fish belonging to the carp family) and monochoria korsakowii (a marsh plant) in the biotope in June 2012, both of which are specified as threatened species in the Red Data List by the Ministry of the Environment and Osaka Prefecture. Both the fish and plant were commonly seen in streams, ponds, canals, and rice paddies in the past. However, their natural habitat in Osaka has been greatly reduced due to the concreting of river beds and canal banks and reclaiming of ponds, as well as environmental deterioration from herbicides. Under a survey by the Aquatic Life Conservation Research Center, Research Institute of Environment, Agriculture and Fisheries, Osaka Prefectural Government, which works to protect these organisms, Eco Solutions Company's biotope was confirmed to be a highly suitable environment to support these fish and plants. Samples of the fish and plants collected from their natural habitats in Osaka were introduced to the biotope with the cooperation and instructions by the Aquatic Life Conservation Research Center, who continued regular monitoring of the introduced organisms in the biotope and confirmed that the hemigrammocypris rasborella have laid eggs and bred. We are delighted that our preservation efforts are working successfully.

Knowing that the biotope in the Eco Solutions Company Kadoma site is contributing to helping threatened living organisms of the area, we will also continue our conventional efforts and expand the scope of efforts in biodiversity awareness promotion through introducing the details and purpose of our activities.



Biotope of Eco Solution Company



Hemigrammocypris rasborella, a threatened species released in the water



Adult monochoria korsakowii, a threatened species



Monitoring living organisms

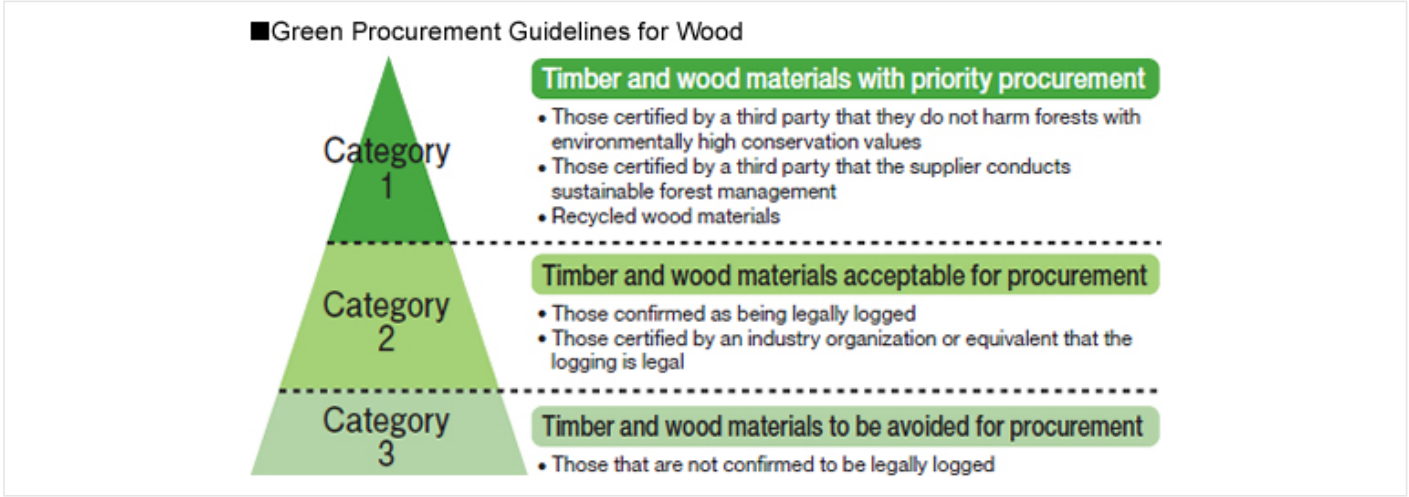


Family of spot-billed ducks swimming across the biotope

### Efforts in Procurement

In an effort to address biodiversity conservation and sustainability, we consulted extensively with World Wide Fund for Nature (WWF) Japan and formulated Panasonic Group Green Procurement Guidelines for Wood. In fiscal 2013, the total procurement of timber and wood materials was measured at approx. 390 thousand m3. By category, this breaks down to 79% meeting "Priority" procurement standards (a 4-point year-on-year

increase), 21% in the category of "Acceptable" (a 4-point year-on-year decrease), and 0.3% in the "Avoiding" category (a 0.3-point year-on-year decrease). We are revising Category 3 procurement and working to eliminate it by the end of fiscal 2014. Once we have attained zero Category 3 procurement, we will make strict efforts to maintain this status.



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 have assessed products which are closely linked to biodiversity.

We have also enhanced our Green Product accreditation criteria by adding biodiversity to the existing items. We define products that contribute to biodiversity conservation as those that use biodiversity-conscious materials in their major components and those that include functions to help biodiversity conservation.

Partnership With the World Wide Fund for Nature (WWF)

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 use and conservation of the Yellow Sea Ecoregion, a body of sea water enclosed by China and the Korean peninsula, in which high biodiversity value exists.

- [Panasonic to Launch Joint Project of Yellow Sea Ecoregion Support with WWF \(Sep 7, 2007\)](#)





### Collaboration With Suppliers and Transportation Partners

As a company backed by a number of suppliers, we must consider the environmental impacts of our entire supply chain, and not just of our own operations. Through our coordination efforts with suppliers and transportation partners, who form an integral part of our business operations, 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.

### Measures for Green Procurement

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 issued an updated version of our Green Procurement Standards in January 2012. This renewed policy aims to build a group of suppliers who agree with our environmental policy and provides products and goods to Panasonic, to reduce the environmental impact of their business activities, share achievements through collaboration, and encourage upstream suppliers in our supply chain to reduce their environmental impact.

Also, in order to promote environmental impact reduction activities more effectively with our suppliers, we monitored the Green Procurement Standards implementation status of our suppliers in fiscal 2013 through the Green Procurement Survey targeted at our major global suppliers on a trial basis. We received responses from 415 companies, and were able to confirm the level of activity in areas such as “environmental management system development,” “thorough implementation of chemical substance management,” “reduction of greenhouse gas emissions,” “promotion of resource recycling,” “promotion of water recycling,” and “biodiversity conservation.” The responses received will be used as materials for decision-making on future business transactions and, at the same time, to identify issues in cutting down environmental impacts. The details of the survey can be found in the Green Procurement Standards.

#### ▸ Green Procurement Standards

### Calling on Suppliers to Reduce Their Environmental Impacts

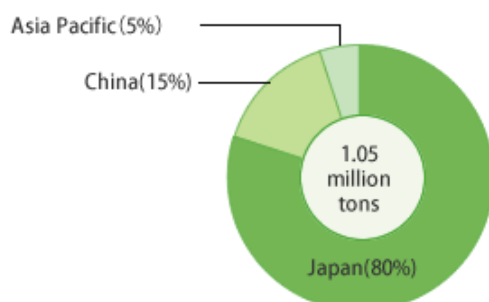
We have launched a trial to identify GHG emissions in our supply chain as a first step toward implementing reduction efforts since fiscal 2012. In order to first identify any issues arising from suppliers' GHG calculation processes, we newly selected and briefed raw material suppliers and electrical/electronic component manufacturers also in fiscal 2013, urging suppliers to calculate and submit appropriate GHG emissions data. We received replies from 101 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), and the total emissions of products delivered by the suppliers to Panasonic were about 1.05 million tons. We will commit to promoting these initiatives while considering factors like economic rationality between Panasonic and suppliers and the completeness of collected data.

Also, our GHG emissions in the upstream segment were estimated by using the GHG emission per basic unit by resource type, based on the volume of resources purchased and on the Input-Output Table published by the Japanese government. The estimate based on the aforementioned figures for fiscal 2012 is 13.64 million tons, roughly 4 times the GHG emissions from our production activities.



Seminar on trial of identifying GHG emissions in the supply chain

■ Breakdown of the GHG Emissions of Products Delivered to Panasonic by 101 Suppliers (by region)





## Sharing Achievements Through Collaboration

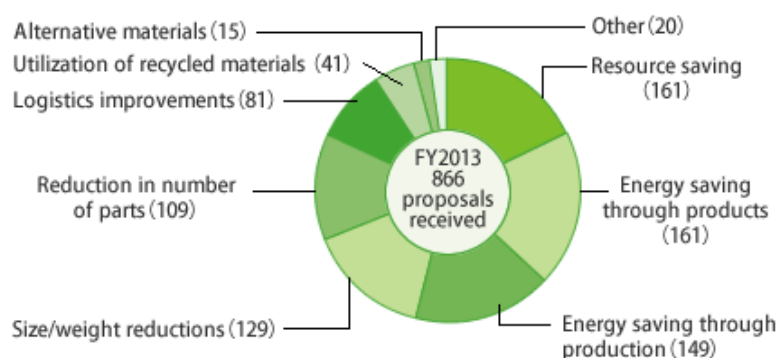
Since fiscal 2010, we have been implementing the ECO-VC \*1 Activity with our suppliers. This program seeks out ways in our parts procurement activities to save energy and resources or use recycled materials, which at the same time aims to rationalize costs. In fiscal 2011, we expanded the focus on Recycling-oriented Manufacturing in addition to the original objective of reducing CO<sub>2</sub> emissions.

Action in China and other Asian nations will be accelerated in fiscal 2013. Suppliers from around the world have submitted a total of 866 ideas on energy saving for products and factories, or proposals on how to make smaller and lighter goods or using fewer parts. We wanted to share the best of these proposals with all our suppliers, and so we established the Panasonic Excellent Partners Meeting, which is attended by all our suppliers worldwide.

In the future, we will implement this ECO-VC Activity throughout the supply chain-from procurement to distribution-to reach many more suppliers and reduce CO<sub>2</sub>, lower costs, and promote Recycling-oriented Manufacturing (minimizing resources used, recycling, and switching to non-petroleum materials).

\*1 VC: Value Creation.

### ■ Breakdown of ECO-VC Activity Proposed by Suppliers (by theme)



### Environmental Results of Proposed Themes for ECO-VC Activity

Items	FY2011	FY2012	FY2013
Number of proposals	668	901	866
CO <sub>2</sub> reductions derived from proposals	163,000 tons	323,000 tons	412,000 tons
Use of recycled resources derived from proposals	11,612 tons	16,521 tons	17,011 tons
Reduction in resources used derived from proposals	12,311 tons	16,231 tons	18,431 tons

### Encouraging Upstream Suppliers to Reduce Their Environmental Impact

In addition to complying with environmental laws, we have called on our upstream suppliers to reduce their environmental impact in the updated Green Procurement Standards, further extending our supply chain initiatives to reduce our environmental impact.

## Promoting Environmental Communication

Panasonic has been focusing on maintaining close communications with stakeholders. As well as actively disseminating our environmental efforts through different media such as products, services, and publications, we also solicit stakeholders' opinions and utilize them as an important resource for our environmental sustainability management.

Also, we place importance on interactive communications, announcing ideas one after another and receiving forthright suggestions from society at large, in order to ensure that our efforts in environmental innovation lead to major innovations in society. We will continue to pursue environmental communication in a wide range of fields.

## Proposals on Environmental Policy

In addition to publicity through Keidanren (Japanese Business Federation) and other industrial organizations, we submit environmental policy proposals not only to the Japanese government but also to governments of other countries through a wide range of opportunities. We joined in policy deliberations on environmental issues that the society is facing today: a future vision for national governments, industry, and people's lives aimed at the creation of a sustainable society, and information sharing and exchange related to international activities. Through this approach we established a deeper understanding of government policy. Based on this, we are engaging in a drive to promote environmental management with an awareness of both business risks and opportunities, through actively presenting proposals from the standpoint of manufacturing, marketing, and technology development.

## Environmental Promotion Through Advertising and Program Sponsorship

In June 2011, we concluded a strategic partnership agreement with the UNESCO World Heritage Centre aiming to conserve world heritage sites and to promote sustainable growth through environmental education for the next generation. We engage in various communication activities, such as exclusive sponsorship of "The World Heritage Special" program on the National Geographic Channel, which has been broadcast in 193 countries and regions worldwide over the last two years. We also engage in environmental education for the coming generations through World Heritage sites, aided by 3D-related audiovisual equipment and technology. Our strategic partnerships will continue in fiscal 2014 and after, with activities being implemented on a continuing basis.



Partnership logo mark

▶ [THE WORLD HERITAGE with Panasonic Special Site](#)

## Environmental Communication Results \*1

Media/activities		Media/activities
Website	Japanese	Approx. 1,031,000 views
	English	Approx. 315,000 views
TV/radio commercial	Japan	Approx. 200
	Global	Approx. 91,000
Newspaper advertisement	Japan	2
	Global	1
Magazine advertisement	Global	3

\*1 Only terrestrial. Handled by the head office of Panasonic Corporation.

## Engagement With Third Parties

Panasonic actively conducts a number of dialogues with experts from both within and outside Japan, and utilizes their comments in its environmental strategies.

With the Natural Step, in particular, we have built a partnership since 2001. We hold an annual meeting with them to share the most advanced environmental information in Europe and seek their opinions on our environmental strategies and activities to assist us in further improvements.



Meeting with the Natural Step

## Communicating Through Showrooms and Exhibitions

Panasonic hosts a range of exhibitions across internal and external facilities to disseminate its vision through products and services, and to receive voices and requests directly from its customers.

At Panasonic Center Tokyo, one of our general information bases, we offer a wide range of solutions realizing lifestyles that are sustainable, safe, and comfortable, together with actual practices based on our research on consumer living.

Also, we participated in Eco Products 2012, Japan's largest environmental exhibition and proposed "Eco & Smart Living" that can be achieved through interactive connections. Here, home living realizing clever, stress-free energy conservation was promoted through our exhibition of Smart Energy and Smart Appliances. In addition, our "Recycling-Based Manufacturing" booth on the theme of resource recycling showcased the technologies we have put into action and our achievements in resources recycling in the past. The hands-on experience section proved popular among elementary and junior high school students visiting the exhibition as part of environmental education. We presented an easy-to-understand study experience on "Why a home using photovoltaic power generation and accumulator batteries is eco-friendly."



Eco Products 2012: resources recycling section at our booth

▶ [Panasonic Center Tokyo](#)

### Participation in Major Exhibitions for Fiscal 2013

Exhibition	Venue	Period
IFA 2012	Berlin (Germany)	Sep-12
Home Care & Rehabilitation Exhibition2012	Tokyo(Japan)	Oct-12
CEATEC JAPAN 2012	Tokyo(Japan)	Oct-12
IGEM2012	Kuala Lumpur (Malaysia)	Oct-12
PV JAPAN2012	Tokyo(Japan)	Dec-12
Eco-Products 2012	Tokyo(Japan)	Dec-12
CES 2013	Las Vegas (USA)	Jan-13
PV EXPO2013	Tokyo(Japan)	Mar-13
SECURITY SHOW 2013	Tokyo(Japan)	Mar-13

## Publishing Environmental Information on the Website

Although Panasonic had been publishing its environmental reports in paper format since 1997, these reports were shifted to solely web-based publication in 2010. Starting in FY 2014, our environmental activity website will be integrated with the CSR website for all-round and exhaustive corporate communication from the standpoint of sustainability.

### History of environmental report issuance

Year	Number of copies			Number of pages	Issued
	Japanese	English	Chinese		
Environmental Report					
1997	17,000	8,000	—	24	Feb-98
1998	10,000	10,000	—	28	Mar-99
1999	18,000	5,000	—	40	Sep-99
2000	22,000	5,000	—	56	Sep-00
2001	20,000	5,000	—	66	Sep-01
2002	25,000	5,000	—	78	Jun-02
Environmental Sustainability Report					
2003	35,000	5,000	—	92	Jun-03
2004	25,000	8,000	4,000	76	Jun-04
Environmental Data Book					
2005	10,000	5,000	5,000	66	Aug-05
2006	10,000	5,000	5,000	68	Aug-06
2007	13,000	5,000	5,000	66	Jun-07
2008	13,000	5,000	3,000	72	Jun-08
'eco ideas' Report					
2009	10,000	5,000	3,000	50	Jun-09
2010	10,000	5,000	1,000	42	Jun-10
2011	Posted on website only (PDF format)		1,000	48	Jun-11
2012			1,000	46	Jun-12

## History of CSR report issuance

Year	Number of copies			Number of pages	Issued
	Japanese	English	Chinese		
The Panasonic Report for Sustainability					
2005	30,000	10,000	4,000	54	Jun-05
2006	30,000	10,000	5,000	62	Jun-06
2007	20,000	7,000	6,000	42	Jun-07
2008	14,000	8,000	5,000	30	Jun-08
2009	Posted on website only (PDF format)			138	Jun-09
Sustainability Report					
2010	Posted on website only (PDF format)			74	Jun-10
2011				50	Jul-11
2012				84	Jun-12

## Major awards in the environmental field (Fiscal 2013)

\* Company names are given as of the time of the award.

Category		Presenter and awards	Specific prize	Recipient company and details
Environmental sustainability management		Business Next, Taiwan Eco Brand Ranking	Super Green Brand Grand Award	Panasonic Taiwan Co., Ltd.
CO <sub>2</sub> reduction	Products & services	Energy Conservation Center, Japan (sponsored by the Ministry of Economy, Trade and Industry, Energy Conservation Grand Prize 2012 (Products and Business Models category))	ECCJ Chairman's Prize	Panasonic Corporation Blu-ray Disc Recorder DIGA
		Eco-Products Awards Promotion Council	Eco Products Category Minister's Prize (Ministry of Land, Infrastructure, Transport and Tourism)	PanaHome Corporation Full Insulation System + Puretec Hybrid Ventilation System with ECONAVI
		The 9th Eco Products Awards	Eco Service Category Promotion Council Chairman's Prize	PanaHome Corporation, Device Company (Honored together with Kyotanqo City Office and Amita Corporation) "Food cycle"
		Japan Electrical Construction Association (Competent government agency: Cabinet Office), 60th Electrical Construction Equipment and Materials Fair 2012	Minister's Prize (Ministry of Land, Infrastructure, Transport and Tourism)	Panasonic Corporation, Eco Solutions Company Energy Creation-Storage Linked System (for the home)
		Japan Center for Area Development Research (Competent government agency: Ministry of Land, House of the Year in Energy 2012)	Special Grand Prize Excellent Corporation Prize	PanaHome Corporation CASART TERRA
		US Environmental Protection Agency, the U.S. ENERGY STAR Awards	Sustained Excellence	Panasonic Eco Solutions North America Ventilation fan
		Institute of Electrical and Electronics Engineers (IEEE), the U.S. IEEE Corporate Innovation Award	IEEE Corporate Innovation Award	Panasonic Corporation HIT Solar Cell
		Industrial Designers Society of America (IDSA), the U.S. International Design Excellence Awards 2012 (IDEA 2012)	Sustainability Award	Panasonic Corporation 20W LED lamp Clear Type
		China Indoor Environment Monitoring Committee, China 2012 Indoor Environmental Protection Industry Top 10 News Award	2012 Indoor Environmental Protection Industry Top 10 News Award	Panasonic Corporation Air purifiers
	Energy conservation activities & facilities	Energy Conservation Center, Japan (sponsored by the Ministry of Economy, Trade and Industry, Energy Conservation Grand Prize 2012 (Energy-Saving Activities category))	Minister's Prize (Ministry of Economy, Trade and Industry), Electricity Saving Award	Panasonic Corporation, AVC Networks Company, Yamagata Factory All participating in energy saving activities in the factory to curb peak time electricity usage
			ECCJ Chairman's Prize	Panasonic Plasma Display Co., Ltd. Reduction of energy consumption rate based on the unique J11 energy principle
			ECCJ Chairman's Prize	Panasonic Corporation, AVC Networks Company, Tsuyama Factory CO <sub>2</sub> emission reduction utilizing the coefficient of performance for standby energy consumption
			Judging Committee Special Award	PanaHome Corporation, Tsukuba Factory Collaborative electricity usage reduction measures by housing manufacturers through cooperation and competition
		Osaka Prefecture, Japan Osaka Stop Global Warming Awards 2012	Governor's Prize	Panasonic Corporation CO <sub>2</sub> emission reduction measures in Panasonic Corporation in Osaka
		Aichi Prefecture, Japan 2013 Aichi Prefecture Environment Awards	Grand Prize	Panasonic Ecology Systems Co., Ltd. Factory energy saving activity by energy usage visualization
Logistics		Ministry of Economy, Trade and Industry, Ministry of Land, Infrastructure, Transport and Tourism, etc., 11th Excellent Green Logistics Commendation Program	Director-General for Commerce and Distribution Policy Prize, Ministry of Economy, Trade and Industry	PanaHome Corporation
Environmental communication		Japan Web Grandprix Office 6th Japan Web Grandprix	Global Environment and Ecology Category High Performance Prize	Panasonic Corporation ECONAVI website
		The Nikkan Kogyo Shimbun, Ltd., Japan 47th Japan Industry Advertisement Awards	Consumer Goods Advertisement Awards	Panasonic Corporation High-efficiency solar cell module technology
		Osaka Prefecture, Japan Osaka Environmental Awards	Grand Prize	Panasonic Corporation, Eco Solutions Company On-demand lecture "Eco lighting"
		Nikkei Business Daily, Japan 39th Nikkei Business Daily Advertising Awards	Nikkei Business Daily Advertising Award (Grand Prix)	Panasonic Corporation Solar Cell Module HIT Double: "Don't give up. There is another side!"
		Fuji Sankei Business i., Japan 51st Fuji Sankei Business i. Business Advertisement Awards	Wide advertisements: Gold Award	

## Environment: Contribution to Local Communities and Education for the Next Generation



### Contribution to Establishing a Sustainable Global Environment and Society as Global Citizens

In order to encourage employees and their families to actively engage in environmental activities at home and in their local communities, Panasonic has been promoting the Love the Earth Citizens' Campaign (LE Campaign) in Japan since 1998, believing that only truly green-minded employees can manufacture truly green products. In 2008 we introduced the Panasonic Eco Relay, where business sites around the world plan local environmental activities and implement them with their employees, along with adults and children from the community. These activities have really expanded on a global basis and developed in many different ways. We strive to contribute to establishing a sustainable global environment and society as global citizens through activities under "Panasonic ECO Relay for a Sustainable Earth," which was named in October 2010 to reflect our desire to make a connection across the generations.



Logo mark

#### ▸ Global Citizenship Activities Promoted by Employees

### Environmental Education Through Biological Surveys

Panasonic now offers a biodiversity lesson/biological survey for children at our regular cleaning sessions in Tsurumi Ryokuchi Park in Osaka Prefecture, Japan. Utilizing original learning materials about butterflies and monitoring tools, both created in cooperation with the Entomological Laboratory of Osaka Prefecture University, children learn about living organisms and the surrounding environment. Then the children are guided in conducting a hands-on survey of butterflies by recording their species and numbers. At the same time, in March 2012 Panasonic Asia Pacific Pte. Ltd. began monitoring the mangrove forest in the Pasir Ris Park in Singapore jointly with the National Parks Board. Once every three months, Panasonic employees and children monitor the species and population of the trees, snails, and mudskippers. The collected data is then utilized in the conservation of the mangrove ecosystem. We raise awareness and knowledge about biodiversity among our employees and children through observation of living organisms in the local area. Including such activities, we offered environmental programs to approx. 736,000 children across the world in fiscal 2013. This makes a total of 1,462,000 children since 2009.



Butterfly monitoring in Tsurumi Ryokuchi Park in Osaka Prefecture



Mangrove forest monitoring in Singapore

### Global Promotion of Tree Planting

Panasonic Deutschland started tree planning activities in Hamburg and the surrounding area in 2008. In 2012, with the help of children participating in our environmental education project, Panasonic Kids School Eco Learning Program, we weeded out invasive plants and planted 2,500 beech saplings in a wildlife park. Panasonic do Brazil Limitada planted 30 native tree saplings on the bank of a stream near the factory premises in November 2012. This marked the beginning of their stream bank conservation project, contributing to restore riparian vegetation. In Japan, our forest conservation activities are continuing. Weeding, periodic thinning, and tree planting are carried out at a variety of locations, including Nagaki Forest in Wakayama Prefecture and Hitorizawa civic forest in Kanagawa Prefecture, Japan. Through these activities, approx. 1,099,000 trees were planted in fiscal 2013, and making a total of 4,061,000 trees planted since 2008. We continue to work on nature conservation across the world together with local communities.



Tree planting in Germany



### Environmental Sustainability Management Across the World

In 2007, we started the Eco Project, in which each region sets out targets and concrete action plans with a focus on the global promotion of environmental sustainability management. We have made public announcements of our environmental commitments in different regions as 'eco ideas' Declarations and actively implemented efforts to achieve those targets.

The three-year mid-term plan which started in fiscal 2011 has evolved into activities centered around the two eco ideas of Lifestyle and Business Style. In addition to accelerating the activities we have conducted so far, such as spreading eco-conscious products, reduction of environmental impact from business activities, and collaborative work with local communities for environmental education, awareness raising, and environmental protection, each region sets sales targets for eco-conscious products.

We have now established a system whereby we announce an 'eco ideas' Declaration for all the regions in which we operate and implement environmental sustainability management suitable to each place. In Russia and Taiwan, the Declaration was made with realistic targets that reflect the situation of each country and the environmental contributions being made are also appropriate to national circumstances.

## 'eco ideas' Declaration in Europe

In September 2010, Panasonic Europe announced its 'eco ideas' Declaration in Europe, which sets its environmental targets for fiscal 2013. Out of six targets, the most significant result concerned our aim of educating 100 thousand children about the environment through the Kids School - Eco Learning Program. The number of children in the program greatly exceeded our target, with more than 180 thousand participating in total. As for the target to reduce 1,000 tons of CO<sub>2</sub> emissions at non-manufacturing sites, more than 3.6 thousand tons of CO<sub>2</sub> emissions were eventually reduced. However, CO<sub>2</sub> emission reduction through energy management products did not achieve its target; this was due to market downsizing, resulting from the termination of the scheme to purchase renewable energy at a fixed price in Germany and other countries.

### Targets of European 'eco ideas' Declaration 2010

Items	Fiscal 2013 targets
'eco ideas' for Lifestyles	(1) Increase the sales ratio of eco labeled products *1 in total sales to 30% (2) Achieve a 3.5 million tons contribution towards reducing CO <sub>2</sub> emissions through energy management products *2 (3) Provide environmental education to 100 thousand children through kids school "eco learning" program
'eco ideas' for Business-styles	(1) Achieve 7 thousand tons of contribution in reducing CO <sub>2</sub> emissions at European manufacturing sites (compared with the case if no improvement measures had been taken after fiscal 2006) (2) Reduce 1,000 tons of CO <sub>2</sub> emissions at non-manufacturing sites *3 (compared with fiscal 2010) (3) Achieve 99% waste recycling rate at European manufacturing sites

\*1 Products with European Type I Eco-labels or those qualified for Panasonic's 'eco ideas' label due to their industry-leading environmental performance.

\*2 Subject items: solar panels, fuel cells, heat pumps, energy recovering ventilations, LED lightings, and compact fluorescent lightings.

\*3 Sites with 100 or more employees.

## Kids School - Eco Learning

In March 2012, Panasonic companies already achieved the target to educate at least 100 thousand European kids aged 7 to 11 years, one year before the anticipated date. This program is now available in most European regions and by March 2013 more than 180 thousand students learned about the reasons of climate change and the impact of global warming.

The Kids School - Eco Learning Program provides learning tools about what it means to be eco-friendly and to protect our environment. Children keep an Eco Picture Diary to capture their projects and participate in national and international Eco Picture Diary awards.

In the pan-European Eco Picture Diary Contest, the grand prize was awarded to a project submitted from Hungary. A global reception for the Eco Picture Diary Contest to award the international winners was hosted in Kyoto, Japan, in December 2012. Participating children from Europe were invited to the reception along with their families. The presentation was followed by a workshop with Japanese children from Kyoto and other areas, and the children from around the world enjoyed working with each other.



Children learning about the environment



Working on an eco picture diary

## LED Clear Light Bulb Receives the iF Gold Product Design Award for Two Consecutive Years

Progress in replacing incandescent lamps with LED lighting has been slow so far, particularly in hotels and restaurants where lighting quality, which includes luminous characteristics and design, plays an important role.

Panasonic's LED clear light bulb offers energy conservation without losing the lighting characteristics of an incandescent lamp—such as the sparkle and delicate shading created by the light. Our LED clear light bulb is produced in a similar shape to an incandescent lamp, thereby reducing the necessity of changing the lamp shade or other accessories.

In recognition of such features, the LED clear light bulb was awarded the gold prize at the iF Design Awards sponsored by iF International Forum Design in Hannover, Germany. This is the second time we have been honored to receive this prize, following last year's award.

This product is sold not only in Europe, but also in Japan and the U.S. It also simultaneously won the Gold Award and the Sustainability Award in the International Design Excellence Awards 2012, hosted by the Industrial Designers Society of America.



LED clear light bulb

## Stakeholder Roundtables in 2012

Stakeholder Roundtables arranged by Panasonic Europe serve as an opportunity for open dialogue to discuss important issues facing the electronics industry. Panasonic is continuing its discussions with its stakeholders to deepen the communication and common understanding of processes and workflows in sustainable development.

The dialogue was held in spring and autumn of fiscal year 2013, with themes covering smart cities in Europe and products with energy efficiency labels. Attendants included people from governmental organizations, a range of industries, consumer groups, and NGOs. They agreed that Panasonic should continue its direction of adapting to today's social demands by shifting to renewable energy for greater sustainability, and to continue challenging as a company that provides not only consumer electronics equipment but also all-round solutions.



Stakeholder roundtables in 2012

## Educational Support for the Next Generation in Collaboration With an International NGO

Since early 2012, Panasonic has been cooperating with World Vision, an international NGO focusing on child care programs. Together with this organization Panasonic has adopted the scheme of developing an environmental education program in Armenia, one of the poorest countries in proximity of Europe.

Partnering there with the regional University of Gavar, this long-term program has established a Learning Centre with technical learning equipment and teaching expertise about 'waste reduction' and 'recycling.'

The project is part of the World Vision child-focused development programs which improves the knowledge of young children on health, nutrition and education issues, and which also aims to help their families and communities in finding ways out of poverty. Panasonic is not only committed to providing technology solutions to create a more sustainable future, but also to contributing to the sustainable development of local communities. The aim of the eco learning project has been to help make a positive difference to children and adolescents in the region. This program will continue in 2013.



Environmental education program



Promotion poster in Armenia

## Green Factory Task Force

The Green Factory Task Force in Europe focuses particularly on the management of chemical substances and energy conservation.

In fiscal 2013, the Task Force hosted a chemical workshop in manufacturing to provide an opportunity for employees to learn about chemical data handling, methods of prioritization for safety, toxicity evaluation, and the substances control process from a health and safety aspect. Participants presented their model cases from each European factory, aiming to share and disseminate the best practices in chemical management and energy conservation across Europe.



Chemicals handling in manufacturing is not only related to environmental management, but also to Health and Safety as well. Under these aspects, our European factories will keep improving their performances to achieve the best possible products that are safe, a safe environment and a safe work place. The first Energy Conservation Training has been organized in Europe at SANYO Hungary Ltd. in Hungary in July, 2012 with about 30 participants from European manufacturing companies.

This training was planned after a strong voice rose from factory Environmental responsible persons and ended with a big success by providing participants practical measures, professional lecture by an expert trainer from Panasonic Manufacturing Training Center, Japan. There have been various measures taken at each site by utilizing earned knowledge on Energy Conservation. Participants collected best practices and ideas through factory tour and took the knowledge to each factory for the best practices and roll-out.

Some of the energy conservation activities conducted in the European manufacturing sites were as follows:

- Panasonic Energy Poland S.A. upgraded the temperature control system in their warehouse and introduced a thermal control system utilizing the exhaust heat from manufacturing processes. This enabled them to reduce CO<sub>2</sub> emissions by 2,200 tons in fiscal 2013.
- Panasonic Automotive Systems Czech s.r.o. in the Czech Republic achieved a total of 300 tons CO<sub>2</sub> emissions reduction in fiscal 2013 by installing thermal insulating curtains in their warehouse and a range of other measures.
- Panasonic AVC Networks Slovakia s.r.o. has been working to improve energy conservation in their factory by changing the types of bulbs, repairing exterior walls, installing new windows, and recycling the exhaust heat from one of its facilities. Attention was also paid to temperature control during the holiday season to realize CO<sub>2</sub> emission reductions.

Chemical workshop for manufacturing



Environmental workshop in SANYO Hungary

## To Become China's Model Company in Environmental Contribution

In May 2009 we organized the China Environmental Forum 2009 to declare our commitment to become a model company in environmental contribution in China and presented the three action areas that we planned to implement to achieve this goal. We are actively promoting environmental sustainability management adapted to regional characteristics.

### Declaration Details in China

Items	Fiscal 2010 Declaration
Products	Consecutive launch of top-level energy-saving products
Manufacturing	Share know-how about environmentally-conscious manufacturing to society
Human resources	Spread employees' eco activities into the local community

### Environmental Labels in China

We are not only working on improving the environmental performance of products through technology development but are promoting the acquisition of the eco labels\*1 that the Chinese government is encouraging, in order to provide customers with easy-to-understand information. In fiscal 2013, we acquired a total of 383 labels in a wide range of product categories, including air conditioning units and washing machines.

In November 23, 2012, we held a press conference jointly with the Environmental Certification Center and the Environmental Development Center of Ministry of Environmental Protection of China on ECONAVI products and Environment Label certification. Drawing the attendance of 50 leading Chinese media firms including China Central Television, the results and product certifications for four types of products in the ECONAVI product group were announced?namely, air conditioning units, drum-type washing machines, refrigerators and air purifiers, that have all acquired the China Environmental Labeling (Types 1 & 2).

\*1 China Environmental Labeling, Energy and Water Conservation Labeling and China Ecolabeling



Award ceremony for certification



Certification for China Environmental Labeling Type 2



China Environmental Labeling Type 1



China Environmental Labeling Type 2

On January 15, 2013, an air purifier from Panasonic Ecology Systems Guangdong Co., Ltd., simultaneously won the 2012 China Indoor Environment Protection Industry Top 10 News Award and 2012 China Indoor Environment Protection Industry New Product Commendation from China Indoor Environment Monitoring Committee. These commendations were the result of the contribution of our air purifiers in dealing with the PM 2.5\*2 pollution that has become a serious issue in and outside China, and the technological capabilities demonstrated in the F-VXH50C, introduced in fiscal 2013.

\*2 PM 2.5 are minute particles with a diameter measuring less than 2.5  $\mu\text{m}$ . Believed to be the cause of asthma and bronchitis, air pollution caused by particulate matter has increased in many Chinese cities including Beijing.





Air purifier F-VXH50C



Plaque for China Indoor Environment Protection Industry New Product Commendation

## Improve Factory Waste Recycling Rate

In our efforts to achieve our global target of a waste recycling rate of over 99% in fiscal 2013, plant waste recycling improvement training for waste management officers and workers at Panasonic production companies in China was held on April 17, 2012, following the training program held in 2011. Thirty-five staff members from 25 companies participated. Also, regional working groups for plant waste management, where the country was divided into six regions, that was formed in fiscal 2012 continued this year to promote greater action on addressing issues, studying cases, and exchanging information among production companies in each region. These activities led to the waste recycling rate rising to 99.3% in fiscal 2013 from 2.2% in fiscal 2011.



Regional working group

## China and Northeast Asia Environmental Compliance Administrators' Meeting

The China and Northeast Asia Environmental Compliance Administrators' Meeting was held in Beijing in July 2012, with an attendance of 68 persons, including environmental management officials of manufacturing companies and representatives from Japan. Topics covered at the meeting included global environmental policy and related measures, progress made in this area, and an overview and future action to be taken in environmental management in China. Environmental contribution and promotion, production activities, and products were identified as key themes. Finally, study cases were presented to share best practices among the participants.



Environmental Compliance Administrators' Meeting



Presentation at the Meeting

## Action on Environmental Education for Children and Tree Planting Activities

Eco-awareness activities by employees are being implemented in various parts of China since June 2009, to achieve the target of environmental education of "One Million Children over 10 Years" and the planting of "One Million Trees over 10 Years." Environmental education training sessions were held in Suzhou, Guangzhou, Hangzhou, Dalian, Shanghai, and Beijing for employee lecturers, with a total of 183 participants. Through the training sessions, the participants learned methods to interact with children with fun and joined workshops on techniques to boost both entertainment levels and expertise in presenting lectures. In fiscal 2013, environmental education sessions reached approx. 225 thousand children, making a cumulative total of around 472 thousand.



Environmental education for children



Tree planting activity

In tree planting, some 27 thousand saplings were planted in fiscal 2013, making a grand total of around 191 thousand trees.



## 'eco ideas' Declaration in North America

Panasonic North America (PNA) announced its 'eco ideas' Declaration for North America in January 2011. Since then, PNA has pursued a number of environmental goals and activities in 2012 focusing on building a LEED certified new headquarters building in Newark, New Jersey, providing world-leading energy efficient products, making eco-educational materials available to children and expanding our award-winning consumer electronic product recycling program.

Regarding the reduction in CO<sub>2</sub> emissions in use of products, the result in fiscal 2013 was approximately 4.61 million tons and the target was achieved the number of youngsters reached with environmental education information was 145 thousand including via an online environmental educational game. With regard to emissions from North American headquarters' operations, we anticipate a 45% reduction by moving into PNA's new state-of-the-art building in July 2013 and the number of collection sites for Panasonic's National Recycling Program reached over 1,800 as of the end of fiscal 2013, exceeding the target by 12%.

## Targets of 'eco ideas' Declaration in North America

Items	Fiscal 2013 targets
'eco ideas' for Lifestyles	(1) Double the sales of environmentally-conscious products *1 (2) Achieve 4.6 million tons in reduced CO <sub>2</sub> emissions through development and sale of energy efficient products (compared with the case without improvement after fiscal 2007) *2 (3) Provide environmental educational outreach to at least 500 thousand students
'eco ideas' for Business-styles	(1) Reduce CO <sub>2</sub> emissions from North American headquarters' operations by 45% (compared with Fiscal 2007) (2) Expand Panasonic National Recycling Program to 1,600 sites

\*1 EPEAT Silver and Gold-registered products, ENERGY STAR-qualified products, and Panasonic's Superior GPs.

\*2 The fiscal 2013 global target for CO<sub>2</sub> emissions reduction was revised due to the restructuring of our TV business in which the per unit size of contribution to reducing CO<sub>2</sub> emissions is substantial; therefore, the North America target was also adjusted.

## Headquarters Building With LEED Certification

In July 2013, Panasonic North America will move its headquarters to a newly built, state-of-the-art office tower along the riverfront in the downtown business district in Newark, New Jersey. The facility is designed to meet LEED Platinum Certification standards for commercial interiors. Among the metrics to attain the highest level of LEED certification include energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Sustainability is also a focus as the facility's exterior built to attain LEED Gold Certification from the U.S. Green Buildings Council. We anticipate that this new LEED building will enable us to reduce the greenhouse gas emissions associated with our corporate HQ operations by 45% when compared to our 2007 emissions.

Besides the building's innovative design, its location is a key factor in contributing to GHG emission reductions. Built adjacent to a major rail transportation hub, the new HQ facility will facilitate greatly expanded use of public transportation by employees. The environmental benefits from employee use of mass transit can be substantial. Based on an employee survey, we estimate that an additional 2 thousand tons of CO<sub>2</sub> emissions can be saved by moving 80% of employees out of their cars and onto trains and other modes of public transit.



New headquarters building with LEED certification

## World-leading Energy Efficient Products

Panasonic's highly efficient LED TVs and ventilation fans received special recognition by the U.S. EPA in 2013. The EPA placed 9 Panasonic Viera LED TVs and 24 Panasonic Whisper Green ventilation fans on the ENERGY STAR Most Efficient 2013 listing. According to EPA, "The ENERGY STAR Most Efficient 2013 designation recognizes the most efficient products among those that qualify for the ENERGY STAR. These

exceptional products represent the leading edge in energy efficient products this year."

In addition, Panasonic's line of energy efficient ventilation fans also helped earn the company's Eco Solutions Company the EPA ENERGY STAR Award for Sustained Excellence in 2013. This marked the third consecutive year the company was so honored.



Ceiling ventilation fan with North America specifications



Award ceremony



ENERGY STAR trophy

## Environmental Education for the Next Generation

In fiscal 2013, we undertook two major environmental education projects for the next generation towards attaining the targets set out in our 'eco ideas' Declaration.

The first was an educational initiative aimed at inspiring greater environmental awareness among America's children and young adults. As part of the Panasonic Kid Witness News schools video contest, we invited middle and high school students to create short Public Service Announcement (PSA) videos that promote greater eco-awareness and environmental sustainability. Five PSA videos were selected as the finalists after a thorough review, and young adults across the U.S. were invited to vote for their favorite video. We hope that children's environmental awareness will be enhanced by watching the videos and participating in the voting.

The second initiative was the development of an educational game called "Green\$treets," which runs on tablet devices and helps young people learn that environmental smartness can lead to economic smartness. This game was released in March 2012 and is now very popular among the educational games category in tablet apps.



Screen shot for KWN PSA Sweepstakes

## Product Recycling

Panasonic continues to demonstrate its strong commitment to environmentally sound recycling of used electronic products and is pleased to announce that we have achieved a key goal to provide over 1,800 collection sites across the United States.

In addition, Panasonic was one of the first electronics manufacturers to begin collecting end-of-life products voluntarily from consumers. Starting from 1999, we have now collected over 87 million pounds of e-waste and recycled it properly. Also, in 2012 Panasonic joined the US EPA Sustainable Materials Management Challenge, committing to recycle 100% of the used products we collect at third-party certified recyclers. Today we have achieved 97% of this goal and anticipate hitting 100% by the end of this fiscal year.

## Solar Technology Advanced in UCSD Partnership

Large scale solar installations in the United States are increasingly equipped with solar forecasting devices known as "sky imagers." These devices are powered by sophisticated algorithms, many of which were developed by University of California at San Diego (UCSD) researchers and engineers. The technology used by UCSD was funded in partnership with SANYO/Panasonic's solar group along with several state agencies.

The "sky imagers" algorithms are now being used by major solar installations at numerous locations across the United States. Among the benefits of using the algorithms has been to support utilities' better integrate solar power into their renewable energy portfolios, helping them overcome the natural variability of sunshine. Utilities using the algorithms can better predict, and time manage, the fluctuations of sunshine-generated power.

## The Disney Eco-Vision House at Epcot Center in Florida

Panasonic is also a proud sponsor of the VISION House® at INNOVENTIONS Attraction presented by Green Builder® Media, located at Epcot® at the Walt Disney World® Resort in Lake Buena Vista, Florida. This ground-breaking green show home is designed to provide visitors with a glimpse of the very best in residential design and sustainable living. Visitors

receive a guided tour of the home introducing them to the latest in energy saving and intelligent products including advanced building ventilation technology featuring Panasonic's award winning ENERGY STAR ventilation fans.



[The VISION House®](#)

## 'eco ideas' Declaration in Latin America

Since April 2010 when the 'eco ideas' Declaration in Latin America was announced, we have accelerated environmental contribution to achieve the targets listed in the Declaration.

One of the targets was to double the sales of Superior GPs that feature the industry's environmental performance by March 2013 in comparison with fiscal 2010, which was 11.4% per total sales. The results significantly exceeded the target by already achieving a ratio of 24% of Superior GP sales in fiscal 2012. The target of CO<sub>2</sub> emission reduction in production activities was also successful, resulting in a reduction by approx. 6,400-tons in fiscal 2013 (approx. 28% less compared with fiscal 2006) thanks to intense energy conservation activities in all the factories and sites operated in Latin America. We are also focusing on environmental education for the next generation and collaborative environmental conservation activities with local communities. We continue to take initiatives in grass-root environmental contribution.

## Targets of 'eco ideas' Declaration in Latin America

Items	Fiscal 2013 targets
'eco ideas' for Lifestyles	(1) Double the sales composition of products with industry-leading environmental performance (compared with fiscal 2010)
'eco ideas' for Business-styles	(1) Reduce total CO <sub>2</sub> emissions from production activities by 10% (compared with fiscal 2006) (2) Develop an 'eco ideas' Factory in Latin America by fiscal 2012 (3) Contribute to local communities by taking initiatives in driving environmental activities together with communities

## The First 'eco ideas' Factory in Latin America-Home Appliance Factory in Brazil

In September 2012 Panasonic do Brazil Limitada (PANABRAS) launched a new white-goods factory to manufacture refrigerators and washing machines in the city of Extrema, Minas Gerais State, Brazil. Through its declaration to implement rigorous eco-conscious measures from design to production, the factory became our first 'eco ideas' Factory in Latin America. The facilities will pursue environmental contribution in the fields of products, manufacturing, and community contribution.

In terms of products, the factory manufactures items equipped with the ECONAVI functionality offering superior energy-saving performance. Brazilian customers can enjoy a comfortable and environmentally sound lifestyle through these products. In the manufacturing field, other than installing a state-of-art energy-saving production system in the factory, energy usage status is monitored in real time across over 150 facilities, strictly minimizing energy losses. Water conservation measures are also in place. Rain water and recycled wastewater are used for toilets to achieve effective water recycling. The city of Extrema is one of the important water resources for Sao Paulo, the largest city in Brazil, and there is a spring even inside the factory premises. Working together with the Extrema Environmental Bureau, PANABRAS has made environmental provisions to retain the spring and its water quality by planting native trees, taking account of local biodiversity. In the field of community contribution, PANABRAS is planning to offer an environmental education program to children in the area utilizing our own education materials—the Eco Learning Program.



The first 'eco ideas' Factory in Latin America, where white goods are manufactured



Press release for a new refrigerator produced in the factory

## Promoting Panasonic Energy Solutions at Rio+20

In June 2012, the Rio+20 United Nations Conference on Sustainable Development was held in Rio de Janeiro, Brazil. The conference was to follow up agreements made 20 years ago in the 1992 Earth Summit. Discussions were held among top-level governmental officials from different

countries on greening the economy in the context of sustainable development and poverty eradication. Timed to coincide with Rio+20, the Japanese government presented the Japan Pavilion exhibition, in which Panasonic hosted a booth. The booth exhibited our energy solutions to realize a comfortable and sustainable lifestyle and also showcased our environmental efforts in Brazil. The energy solution display covered a range of Panasonic technologies and products that deliver the creation, storage, conservation, and management of energy. These included HIT solar panels which boast the industry's highest energy conversion efficiency standards and high-capacity lithium batteries, along with various energy-efficient products such as refrigerators, air conditioners, and washing machines. The booth also introduced the Fujisawa Sustainable Smart Town project as one example of our solutions that improves energy usage across an entire town.

Through this exhibition we will make the best use of the network we have built up with governmental officials from around the world and key B2B persons, aiming to expand our energy solution business in Latin America.



View of the Panasonic booth



Display of energy creation and storage



Display of energy-efficient products

### New Branding Campaign with an Environmental Focus-[re]think

Since April 2012, PANABRAS has been undertaking a new branding campaign, known as "[re]think," to increase the awareness of the Panasonic brand among Brazilian customers. [re]think sends our customers the message of "stop and think" to realize the importance for each of us to think about the impact of our actions on the environment and society in various occasions in our daily lives. The message conveys our strong wish to work together with our users and spread products that not only bring convenience and comfort, but at the same time take account of the environment throughout people's day-to-day lives.

A concentrated advertising campaign was conducted through various media outlets, including TV, magazines, signs and billboards, and the Internet. Thanks to viewers' attention and positive responses, access to the PANABRAS website increased 1.5 times and access to Facebook increased 2.5 times compared with the previous year. Environmental awareness is high in Brazil, and branding communications with an environmental focus proved to be effective. We will continue this environmental communication with our customers through the [re]think campaign.



Website of the [re]think campaign

### Environmental Education for the Next Generation

Every year we offer environmental education for the next generation to 40 thousand students in elementary schools and junior high schools in Latin America using our Eco Learning Program. Collaborating with the UNESCO World Heritage Centre, we have offered educational programs in Iguassu National Park, a world heritage site in Brazil in 2011, and in the Archaeological Monuments Zone of Xochicalco, another world heritage site in Mexico in November 2012. A total of approx. 600 students in elementary and junior high schools joined the program, which was designed for them to learn about importance of protecting world heritages and the global environment.

We plan to create a program more closely connected to the region, such as including a topic related to the Amazon. We are anticipating that around 45 thousand students will participate in environmental education in fiscal 2014.



Creating a hat with a decorative feather



Environmental education in Xochicalco, Mexico



Creating an eco picture diary



## 'eco ideas' Declaration in Asia Pacific

Panasonic Asia Pacific Pte. Ltd. (PA) announced its 'eco ideas' Declaration in 2010, with mid-term environmental targets set in the areas of eco products, eco education and CO<sub>2</sub> emissions reduction. Since then, we have been working towards achieving these targets and reporting the progress every year. For the target on increasing eco products sales, we have achieved 80% of the total sales contributed by eco products through the introduction of various eco products to the market. One of these products is an air conditioner that won the National Conservation Energy Award (NCEA 2012) in India.

As for eco education, the region has introduced eco education programs in 7 countries. The number of youths who participated was about 280 thousand, for exceeding the initial target of 200 thousand.

## Targets of 'eco ideas' Declaration in Asia Pacific

Items	Fiscal 2013 Target
'eco ideas' for Lifestyles	(1) Increase the sales percentage contributed by eco products to 80% (2) Further promote Eco Learning Program (target participants: 200 thousand youths by March 2013) (3) Develop new Comprehensive Energy and Environment Solutions Business in Asia Pacific
'eco ideas' for Business-styles	(1) Reduce CO <sub>2</sub> emissions by 600 thousand tons in production activities (compared with the case without improvement after fiscal 2006 level) (2) Develop 3 more 'eco ideas' Factories *1 in Asia Pacific by the end of fiscal 2014 including a new model factory in India (3) Organize an Asia Pacific 'eco ideas' Forum in the Singapore International Energy Week (SIEW) 2011

\*1 An 'eco ideas' Factory is a model factory which lives in harmony with local communities and stakeholders, as well as embodies Panasonic's environmental strategy with two 'eco ideas' initiatives.

## Environmental Education Programs for Youths in Asia Pacific

Panasonic places a strong emphasis on educating the young generations on the environment and has since rolled out environmental education programs in 7 countries in the Asia Pacific region.

In Thailand, Panasonic has launched the Low Carbon School Network Project (LCSN) jointly with the Bangkok government (Bangkok Metropolitan Administration), Worldwide Fund for Nature Thailand (WWF), and Foundation of Environmental Education for Sustainable Development (FEED) to provide environmental education focusing on climate change and smart energy solutions to students from 16 primary and secondary schools in Bangkok in July 2012.

In this project, smart energy workshops and camps were conducted for both the teachers and students. After the workshops, the students proceeded to implement energy projects in their schools under the guidance of their teachers. These projects were exhibited at the Earth Hour 2013 event.

Panasonic India (PI), in collaboration with 17 NGOs, has started a new project, Panasonic Ecos'kool - Prithvi Vandana, a nature empowerment program that uses theater as a means to impart knowledge about global warming and climate change to the students since August 2012. In this program, 200 schools in 17 cities in India were taught dramatic play by a renowned artist from National School of Drama. These schools then proceeded to create short plays with environment as the theme to participate in a contest.

In Indonesia, Panasonic has extended the eco education program to 7 cities in collaboration with Tunas Hijau, a non-profit organization, after the successful eco education program at Panasonic Lighting Indonesia, the 'eco ideas' Factory in Surabaya city. Named as Eco KiDeas-One program, the program conducts environmental workshops for the students and encourages students to work on environmental projects within their schools. Till date, the program has reached out to 7,110 students in 110 schools.



The Low Carbon School Network Project (LCSN) session conducted in Thailand



Stage play by participating students in India to promote environment protection



Environmental education at Panasonic Lighting Indonesia

## 'eco ideas' Factories Initiatives in Asia Pacific

Panasonic has established 'eco ideas' Factories in each country in the Asia Pacific region to promote and communicate green manufacturing activities to the public. These factories are model factories which are used in outreach activities to raise the level of eco consciousness within the community. These model factories manufacture eco-friendly products with sustainable industry practices and place an even greater emphasis on energy efficiency, waste management, and recycling.

Panasonic Vietnam Group (including three companies mainly Panasonic Vietnam, Panasonic System Networks Vietnam, Panasonic Industrial Devices Vietnam) at Thang Long Industrial Park was launched as the 'eco ideas' Factory in Vietnam in October 2012. This manufacturing site has set up an energy management committee and has been implementing CO<sub>2</sub> emissions reduction measures including changing to energy efficient equipments, such as inverter air-conditioner system and hi-efficiency lighting. The Panasonic Vietnam Group's efforts in energy management have won them the first prize in the Energy Management in Industry and Building contest organized by the Ministry of Trade and Industry in 2012.



Opening ceremony of the 'eco ideas' Factory in Vietnam

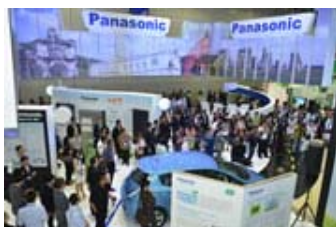
In India, Panasonic has opened a new factory as the 'eco ideas' Factory which manufactures environmentally-friendly air conditioners, washing machines, as well as welding and cutting machines catered to the domestic market in December 2012. Located at Dadri Toi in Jhajjar Haryana, Panasonic Technopark is designed with various green features, which include a 28.29 kWp solar modules installation at the rooftop of the office, entrance canopy and car park to reduce CO<sub>2</sub> emissions, and a 100% rain water harvesting system as a sustainable water provision.

The other existing 'eco ideas' Factories are also continuing their efforts in promoting environmental initiatives in their production and outreach activities. Panasonic Lighting Indonesia has developed a new LED model customized for the Indonesian market, aiming to make such energy saving lamp more affordable for the customers.

## Active Promotion of Our Energy Solutions Through International Platforms

Panasonic Asia Pacific has tapped on international platforms such as the Singapore International Energy Week and the World Cities Summit to showcase and promote technologies for green lifestyles and business-styles. During these events, Panasonic participated as the key sponsor and shared our thought leaderships in the areas of energy efficiency and solutions for smart and eco cities.

In Malaysia, Panasonic Malaysia participated in the International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM) 2012 and showcased Panasonic's comprehensive energy solutions for home, building, convenience store, factory, and township under the theme of "Panasonic Energy for an ECONATION." In addition, the "Building an ECONATION" forum was also held in conjunction with IGEM for around 180 participants, in which top-notch speakers from Malaysian Nature Society, National Geographic, Sustainable Energy Development Authority, etc were invited by Panasonic to discuss green issues and technologies and how everyone can work towards a greener future for Malaysia. Panasonic has clinched the "Super IGEM Award" for its booth design and supporting activities.





## Panasonic Wins Awards in Different Countries for Its Efforts in Environmental Contribution

Panasonic has received various environmental awards in 2012 for the company's efforts in environmental sustainability.

In Singapore, Panasonic Asia Pacific is awarded the President's Award for the Environment 2012. Administered by the Ministry of the Environment and Water Resources, this annual award is the highest accolade given to individuals, organizations, and companies that have contributed significantly to Singapore's efforts in achieving environmental sustainability. In 2012, Panasonic Asia Pacific was the only electronics company receiving this award, along with the two other recipients from the banking and education sectors. The company is recognized with its dedicated and consistent efforts towards managing the environmental impacts of its business operations, and it stands out for its declared aim to integrate environmental goals with business growth through the development of green products, establishment of environmentally-friendly manufacturing processes, and active efforts towards environmental corporate social responsibility.

In Indonesia, PT Panasonic Manufacturing Indonesia (PMI) has been presented an award by the Jakarta Provincial Government for its environmental management. This is an annual award and companies are judged on their environmental management which include air and wastewater pollution control, as well as hazardous waste management. This award was given in recognition of the company's overall environmental initiatives, including a wastewater treatment facility in the premises, waste management and CO<sub>2</sub> emission reduction measures, tree planting activities, and showrooms exhibiting eco lifestyle, as well as ISO14001 certification. PT Panasonic Manufacturing Indonesia was the only electronics company receiving the award.



PA was awarded the President's Award for the Environment 2012, the highest accolade for environmental sustainability in Singapore



PMI was honored with the Jakarta 2012 Excellent Environmental Sustainability Management Award

## Targets of 'eco ideas' Declaration in Middle East & Africa

Panasonic Marketing Middle East Africa (PMMAF) announced the 'eco ideas' Declaration in Middle East & Africa in October 2010 and has made active efforts towards attaining the respective targets.

The sales ratio of Superior GPs was 6.8% in fiscal 2010. This figure has increased by 3.3%, reaching 10.1% in fiscal 2013. Also, the total number of visitors to showrooms—which additionally function as environmental education sites—marked 80 thousand people between April 2011 to the beginning of fiscal 2013, and the number is still increasing.

In addition, PMMAF has actively promoted a variety of environmental projects on attaining LEED and ISO 14001 certification, providing environmental education for next-generation by enhancing partnership with various stakeholders and casual environmental activities attended by all employees like Earth Lunch Hour.

## Targets of 'eco ideas' Declaration in Middle East & Africa

Items	Fiscal 2013 targets
'eco ideas' for Lifestyles	(1) Double the regional sales of Panasonic Superior GPs (compared with FY2010) (2) Provide environmental education to 100 thousand visitors to our showrooms
'eco ideas' for Business-styles	(1) Reduce CO <sub>2</sub> emissions from PMMAF premises by 15% (compared with fiscal 2010) (2) Obtain LEED and ISO 14001 certification for PMMAF premises (3) Conduct Earth Lunch Hour once every month attended by all PMMAF employees (4) Education for next-generation with the UAE Ministry of Education. Also promote the eco picture diary activity (5) Provide scholarships for graduate students under the Environmental Science Bachelor Degree Program of Abu Dhabi University (6) Participate in WWF Lake Victoria Catchment Environmental Education Program as an exclusive sponsor

## Acquisition of ISO 14001 Certification and Promotion of Attaining LEED Certification

In October 2012, PMMAF obtained ISO14001 certification, an environment management system that is still rarely implemented in companies in the Middle East region. With this third-party certificate, PMMAF has now been publically accredited for its environmental management implementation.

In April 2011 PMMAF also started preparing to apply for LEED certification. The certification procedure includes a rigorous evaluation of the design, structure, and environmental efficiency of the buildings. This preparation is made with help and advice from the Middle East Centre for Sustainable Development, an institute established with support from public bodies to develop Dubai into a sustainable city. PMMAF is currently working towards obtaining LEED Gold certification.



Acquisition of ISO 14001 Certification

## UNESCO Eco-learning Program

In April 2012, PMMAF hosted an environmental education program for children at the Cultural Sites of Al Ain in the United Arab Emirates (UAE). This program is one of the joint activities under a partnership between Panasonic and UNESCO World Heritage Centre; approx. 400 children from eight local schools participated in the program. An environmental lesson concerning global warming was given by Panasonic employees and the children learned about the wisdom of ancient people who survived harsh environmental conditions, including intense heat and drought, through 3D images and a viewing tour. The children also learned to express what they had learned through writing and drawing in an Eco Picture Diary session conducted at the end of the day's program.



Students participating at the UNESCO e-learning program in UAE

## Contributing to the Local Community Through a Student Scholarship to Study Environmental Science at Abu Dhabi University

PMMAF embarked on an educational drive and sponsored students enrolled for the Environmental Science Bachelor Degree Program at the Abu Dhabi University. Through this scholarship, we present young people with an opportunity to study in a university that could lead to a future career. So far we have offered the scholarship to six students, and we are actively continuing our involvement.



Students awarded scholarships at the Abu Dhabi University supported by Panasonic

## Lake Victoria Catchment Environment Education Program

The Lake Victoria Environmental Management Project is a development program covering Lake Victoria and surrounding water resources through lake ecosystem management, water quality control by the local community, the collection of biological data, protection of water hyacinths, and land usage controls. This is a trans-boundary program jointly conducted by the Republic of Kenya, the United Republic of Tanzania, and the Republic of Uganda to recover the lake environment, particularly by reducing the level of pollutants flowing into the lake.

In line with this Project, Panasonic Marketing Middle East FZE participates in the Lake Victoria Catchment Environment Education Program, working together with the WWF. The program is designed to help local children to understand the environmental problems that affect the lake and develop their own problem-solving skills. The program is targeted at approx. 1,800 students and 1,200 teachers in three schools, one from Tanzania, Uganda, and Kenya each. These schools are now working to become model schools in each country. We plan to extend this program to schools beyond the lake area and host discussions and forums via the Internet in the future.



Panasonic's Eco Declaration board displayed at the school

## Earth Lunch Hour at PMMAF Offices

PMMAF has held Earth Lunch Hour to have an opportunity to think about the subject of global and regional environment and what we can do for environment. All PMMAF employees have been engaging in the eco-lunch on an on-going basis. Since its start in 2011, more than 20 Earth Lunches have been held.

In the eco-lunch, there are many attractive and joyful events like eco-quiz, eco games and eco movie etc, so everyone enjoys this event. The regular Earth Lunch Hour is planned to continue in fiscal 2014.

## Clean-Up Drive at Beach and Park in UAE

At the event of beach clean-up drive in November 2012, more than 1,000 people from across UAE and more than 20 Panasonic employees participated and gathered at Dubai's Al Mamzar beach for the 11th edition of the Global Clean-Up Drive 2012. This event was held as a part of Clean-Up the World organized by UNEP, and PMMAF has been participating in this clean-up as a sponsor for the past two years. This year we distributed eco bags to participants. We also hosted park clearings and a family day event in February 2013, in which more than 500 employees and their family members participated. Over a one-month period, people cleaned up the park, collecting more than 600 kg of plastic waste. This was then sent to a major facility management company in UAE for recycling.



Participants at beach clean-up drive



All participants of park clean-up drive in UAE

### 'eco ideas' Declaration in Russia

Panasonic Russia, Ltd. (PRA) has been working on environmental contributions in Russia since its 'eco ideas' Declaration in Moscow in 2010. In 2012, we renewed the eco section set up in our showroom and started a collaborative campaign with an environmental NGO to promote contributions to environmental protection among Russian citizens. In addition, we place particular emphasis on activities to raise environmental awareness for the next generation. Following the previous year, we again promoted environmental awareness in the 2012 Seliger Forum, an educational forum for young people hosted by the Russian Federal Agency for Youth. We also started a new environmental action competition for young people, 100 Steps to the Arctic.

### Targets of 'eco ideas' Declaration in Russia

Items	Fiscal 2013 targets
'eco ideas' for Lifestyles	(1) Increase sales ratio of Superior GPs to 30% (2) Strengthen eco-themed promotional activities at showrooms
'eco ideas' for Business-styles	(1) Shift 50% of products originating from the Asia region to transportation modes/routes with less environmental impact (2) Provide eco learning activities for the next generation in Russia (3) Actively participate in eco activities of the Sochi 2014 Winter Olympic Games Organizing Committee (4) Designate an Environment Day twice a year for employees to participate in volunteer environmental activities

### Reinforcing Environmental Promotion Through the Showroom

To introduce our eco-conscious products and environmental efforts, we have set an eco section in the showroom in Gorbushka, the largest electrical goods market famous in Russia. In 2012, this eco section was renewed to further promote environmental awareness.

In cooperation with WWF Russia, an international environmental NGO, the new eco section is now designed to encourage Russian people to actively contribute to environmental protection. The promotion includes fund raising to help protect polar bears using the polar bear mascot of the Sochi 2014 Olympics, a popular character among the Russian people. A signature collection to support forest protection in Russia is also running in the eco section. The eco section is carefully designed to attract visitors' attention. For example, eco products are introduced with an easy-to-understand explanation on a display board, taking account of audience who may not be familiar with such products. Each month, different eco products are displayed in a showcase or on a stand. We plan to start a used battery collection in the eco section to raise awareness of appropriate resource recycling.

As a result of such efforts, the eco section has grown into a highly reputed spot that catches people's interest. We are continuing with active promotions and plan to open more eco sections in our showrooms in other cities.



Display in the eco section

### Setting Up the Environmental Action Contest, 100 Steps to the Arctic

PRA set up a competition to highlight the best environmental actions in 100 Steps to the Arctic in October 2012. This competition is designed to raise awareness of environment protection among young people in Russia and encourage them to take concrete action. This initiative is being implemented with full support from WWF Russia, with whom we built a strong partnership through protecting polar bears, one of the mascots of the Sochi 2014 Winter Olympics.

100 Steps to the Arctic comprises open lectures about environmental issues and a contest for environmental action projects. The open lectures are presented in major universities in 12 cities in Russia, including Moscow, St. Petersburg, Volgograd, and Kazan. A total of around 1,000



students have attended the lectures. The lectures enlighten attendants about the current status of environmental issues, as well as causes and countermeasures, followed by discussions concerning what individuals can do in their everyday activities to help. PRA employees contribute to these lectures as teachers.

During the environmental action contest, teams of participants first submit ideas concerning anti-global warming, biodiversity protection, and other environmental actions. The teams then report the results of their actions with photographs and videos. The fiscal 2013 contest attracted a total of around 120 thousand participants with 94 nominations for environmental actions. After the strict, but fair, judging, team Minley from the Nenets Autonomous Area won the Best Prize for their skills in planning an easy-to-approach eco action concerning the Arctic warming problem, feasible by individuals which also involved many participants from the local community.



Environmental lecture at a university



The Best Prize winners of 100 Steps to the Arctic



Eco action in operation



White Bear, mascot of 100 Steps to the Arctic



Pics, the character for Panasonic Kids School

## Supporting the Government-led Seliger Forum With Environmental Inspiration

PRA contributed in the Seliger Forum, an education program hosted by the Russian Federal Agency for Youth, by inspiring young people towards environmental action. The Forum is held to nurture the generation that will sustain the future Russia, with approx. 20 thousand young and competent participants aged between 16 to 24 from throughout Russia. The participants camp together in groups, and learn the knowledge and know-how needed to attain their dreams and goals through study and discussions in themed programs.

PRA has been involved in the Forum as an official partner since 2011, based on its concurrence with the Forum's purpose and its own commitment to environmental education for the next generation, as stated in the 'eco ideas' Declaration. PRA offers wide-ranging support by providing various environment-themed programs, as well as audio equipment and office supplies to be used at the Forum site.

In the 2012 Forum, environmental lectures were presented by PRA employees, which covered environmental problems that occur on a global scale. They continued into active discussions with the 270 young people in the audience about what each of us can do to help address these problems. Further, the lectures offered an opportunity to consider an ideal future society by presenting the concept of a next-generation sustainable city. We also encouraged participants to submit their own Eco Project plans and presented awards for the most well-considered ideas. The winners have an opportunity to put their plans into action using the cash prize. In 2012 there were approx. 300 applications, three of which were awarded with grants to undertake their missions. The winning projects in 2012 were: a geo-information system for monitoring air quality; an eco gallery; and modeling an optimal indoor climate using natural materials. We also demonstrated the importance of forest protection by actually cleaning up the woodland around the forum site together with forum participants.



Forum participants from throughout Russia



Environmental lecture by PRA employee



Group discussion about an eco city as a part of lectures



Eco Project Award winners

## 'eco ideas' Declaration in Taiwan

The Panasonic Group in Taiwan unveiled the Taiwan 'eco ideas' Declaration in October 2011. Action is underway with concrete targets in the three areas of products, manufacturing, and employee activities to be realized by 2015.

In products, we are working on improving the sales ratio of products with top-class ECONAVI functionality through consecutive launches of such products. In fiscal 2013, we were able to raise the ratio of these products to total sales from 37% in fiscal 2012 to 47% in fiscal 2013, through the launch of new ECONAVI products in the dehumidifier and electric rice cooker categories. As a result, the contribution in terms of reducing CO<sub>2</sub> emissions was 240 thousand tons. In manufacturing, activities such as improvements in production facilities and the promotion of the use of inverters in regulating energy consumption to correspond with production levels helped to reduce CO<sub>2</sub> emissions by 31.4% (over the same period in 2005). Also, waste reduction and exhaustive sorting has improved the waste recycling rate, now as high as 99.3%. In the area of employee activities, environmental action, such as tree planting and beach cleaning, has been expanded to widen contributions to local communities.

Such proactive action has been recognized, and Panasonic has been selected as one of the top 10 eco-brands in Taiwan's only environment-related brand survey for four consecutive years.

## Targets of 'eco ideas' Declaration in Taiwan

Items	Targets for fiscal 2016
'eco ideas' for Lifestyles	<ul style="list-style-type: none"> <li>• Consecutive release of products with ECONAVI functionality (highest environmental performance)</li> <li>(1) Enhance sales ratio of products with ECONAVI functionality to 50% or more</li> <li>(2) Achieve the size of contribution in reducing CO<sub>2</sub> emissions from product use amounting to 400 thousand tons (compared with the fiscal 2006 level)</li> </ul>
'eco ideas' for Business-styles	<ul style="list-style-type: none"> <li>• Environmental contribution through production activities</li> <li>(1) Reduce CO<sub>2</sub> emissions by 5% or more (compared with the fiscal 2006 level)</li> <li>(2) Increase the waste recycling rate to 99.3% or more</li> <li>• Environmental contributions by employees</li> <li>(1) Enhance tree planting activities in various locations</li> <li>(2) Promote cleaning activities</li> <li>(3) Expand environmental education focusing on nurturing the next generation</li> </ul>

## Taiwan Panasonic Showroom Opened to Communicate 'eco ideas' in Everyday Living

In May 2012, the Taiwan Panasonic Showroom was opened to showcase the advanced technologies of the Taiwan Panasonic Group. The main concept behind the hall is "the proposal of advanced products, technologies, and solutions focused on the environment." In addition to the display of the latest products with outstanding energy-saving performance, represented by our ECONAVI products, there is an exhibition area in the venue for the Smart Eco House, offering suggestions in realizing both comfort and eco-friendliness at the same time. Alongside this presentation of state-of-the-art technologies and products for energy conservation, generation, and storage, we also offer proposals for total solutions covering the entire house to realize efficient energy controls through HEMS (Home Energy Management System). A wide range of information is expected to be communicated through the Showroom, for further CO<sub>2</sub> reduction and the realization of a lifestyle that is both comfortable and minimal in its environmental impact.



Taiwan Panasonic Showroom opening





HEMS shows greater energy visibility in the home

## Wider Employee Activities in Tree Planting and Beach Cleaning

Taiwan Panasonic Group actively encourages employee activities in environmental protection. In 2012, a tree planting activity fund was newly created with the contribution of a part of ECONAVI product sales in Taiwan. In fiscal 2013, approx. 12 thousand saplings were planted on 10.5 ha of land close to Taoyuan Station on the Taiwan High Speed Rail. The woodland created by tree planting has been named Panasonic Forest and is expected to be developed further as a calm and relaxing place for local people. Also, tree planting by employees and their families is held every March. The joint tree planting session in March 2013 by the Group involved more than 400 employees and their family members. 2,013 saplings were planted in the Guishan area, Taoyuan County, in northwestern Taiwan.

Also, great efforts are being directed at beach cleaning activities. Under an agreement concluded with New Taipei City in 2011, we have become an "adopter" group for a beach located in Wanli Dist, Xiashe in the city and are contributing to beautifying the beach. It has been named Panasonic Beach and is being cleaned six times a year, engaging approx. 700 participants from among our employees and their families.

Taiwan Panasonic Group plans to continue organizing such activities, recognizing tree planting and beach cleaning activities by its employees and their families as an important aspect of our contribution to local communities.



Joint tree planting activity



Panasonic Beach clean-up

## Exhibition at Building Taiwan, Taiwan's Smart Green Industry Trade Fair

In October 2012, Building Taiwan 2012, a trade fair for the smart green industry, was held in Taipei, with the Taiwan Trade Center as sponsor. The event is a state-of-the-art trade fair featuring the future of the "green" and "smart" industries and is drawing wide attention, with total visitors reaching more than 13 thousand. Taiwan Panasonic Group participated as part of the 10-company assembly. Mobilizing its all-round strengths, we showcased total solutions for private homes, factories, and hotels, alongside our latest technologies and products in environmental protection, such as HEMS and the Green Room System, for a comfortable and eco-friendly lifestyle. The group received a large number of visitors, including top Taiwanese government officials, keen to take a closer look at our cutting-edge technologies in the areas of the environment and energy.

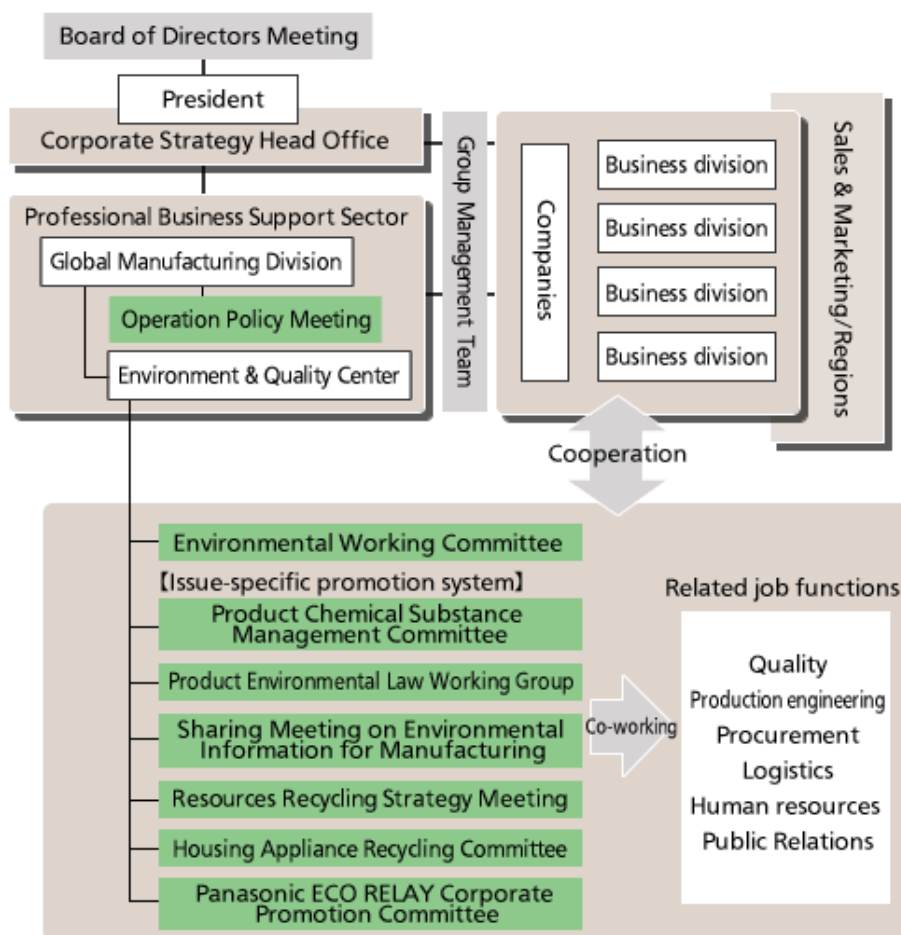
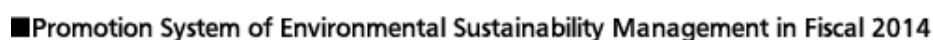


Panasonic booth at the trade fair

## Management and Promotion System Centered on PDCA

The PDCA cycle for corporate-wide environmental sustainability management is implemented by each Company and business division through setting its own environmental targets, and planning and promoting its activities in accordance with the annual environmental management policy which is developed under the Panasonic Group business policy and the environmental action plan "Green Plan 2018." The annual environmental policy is shared across the entire organization through the "Operation Policy Meeting of the Global Manufacturing Division" led by executive officers in charge of environmental management. Issues in promoting key environmental activities are deliberated at the Environmental Working Committee etc., which consists of environmental compliance administrators at Companies and Regional headquarters outside Japan. Environmental performance data representing activity results is gathered and assessed on a monthly basis as a general rule to identify the achievements, and additional measures are executed as needed. Annual performance data is disclosed after receiving third-party approval. Reviews and feedback from stakeholders are utilized in subsequent measures to ensure further and continuous improvement.

In addition, there are committees and working groups to form a promotional structure that focuses on key measures to resolve challenges, where members involved are spread across Companies and job functions. Specifically, there is the Product Chemical Substance Management Committee which deliberates and exhaustively implements chemical substance management guidelines, and the Product Environmental Law Working Group which engages in information sharing regarding product-related laws and regulations and reviews actions to be taken.



### Encouraging All Employees to Become Environmental Innovators

As a part of human resource training to create a driving force behind environmental sustainability management, Panasonic has been implementing a range of environmental educational programs. General Programs deliver environmental knowledge along with our environmental policy and information about our activities, and vary depending on the employee's specialty and position. Specialized Programs are designed to bring employees' environmental skills to an advanced level.

In fiscal 2013, Environmental e-Guide FY2013 was implemented as a General Program through the intranet across global sites in June, the month of World Environment Day. Around 132 thousand employees took this opportunity to acquire wide environmental knowledge, which included our environmental efforts, social trends, and legal regulations, as well as to improve their environmental awareness. Additional contents including basic knowledge and practical tips on electricity saving were designed for employees in Japan, who were requested to continue their electricity saving efforts at home as well as in the office, just as they had been doing in the previous year.

In addition to the standard topics in the Specialized Program, which cover environmental legislation, management of chemical substances, waste management, and energy conservation diagnoses, three new subjects were added in fiscal 2012. One of the new topics is the basic training seminar on Green Products, which discusses designing eco-conscious products. The scope of attendants was also extended to a wider range of job categories.

A total of 22 seminars were offered in Japan, China, and Asian countries in fiscal 2013, with 509 people attending the seminars, including those working in non-environment-related divisions.

We will continue to enhance our environmental education as a part of human resource training programs to nurture environmental specialists.

### Global Competitions and Local Training to Foster Higher Environmental Awareness and Skills

In the Panasonic Group Manufacturing Skills Competition held annually on a global scale, participants compete in the two categories of eco mind skills (overall environmental knowledge and expertise) and energy conservation diagnosis skills, (ability to make improvement proposals for energy conservation at offices and factories).

To encourage highly skilled core individuals working for green innovation, awards are presented to high-ranking competition performers. We also provide continuous support to upgrade company-wide environmental standards.

The Eco Mind Skills competition was held for the first time in China in fiscal 2012 as a part of seminars at global sites promoted and operated mainly by local employees. The questions in the competition reflect the important environmental trends of the region, aiming to promote an environmental awareness in touch with the reality of the frontline.

Also, the first "energy conservation diagnosis skills technologies" was held in Europe in fiscal 2013 in response to requests, welcoming attendants from seven countries. The seminar was conducted based on a more practical approach, with attendants assessing energy conservation for a factory under the instruction of active energy conservation diagnosis officers. We will continue to provide educational support that disseminates the energy conservation expertise built in Japan to global business sites and enable them to promote their own energy conservation measures.



Manufacturing competition



Energy conservation diagnosis seminar in Europe

## Establishment of Environmental Management Systems (EMS)

As the foundation of environmental sustainability management, Panasonic established EMS in all of our manufacturing sites across the world in fiscal 1999, and has continued to have the sites ISO14001 certified since then.

In order to further reinforce those efforts, we have set a basic policy to establish Environmental Management Systems in all our sites-both manufacturing and non-manufacturing-across the world, and to have all these sites ISO14001-certified in principle. In October 2011, we published the Environmental Management System Establishment Guidelines, which summarizes EMS concepts for different business forms such as production, sales/services, and head office tasks. Based on the guidelines, we are promoting EMS throughout the entire Group.

### Obtainment of ISO 14001 Certification (as of end of March 2013)

Region	Number of certifications obtained *1		Total
	Manufacturing	Non-manufacturing	
Japan	39	25	64
Americas	18	6	24
Europe	12	2	14
Asia Pacific, Middle East & Africa	54	12	66
China & Northeast Asia	65	5	70
Total	188	50	238

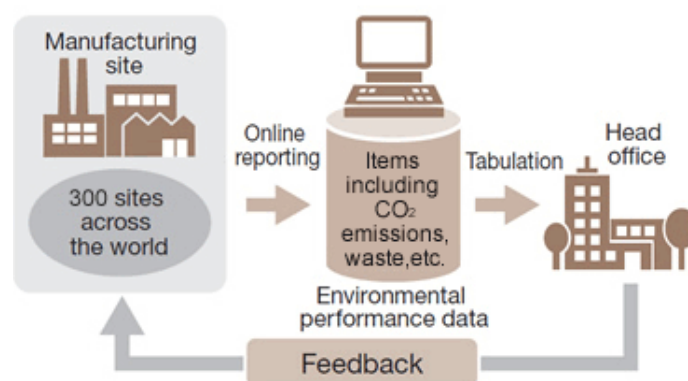
\*1 Including multi-site certifications. Depending on the consolidation and closure of sites and promotion of multi-site certifications, the number of certifications obtained varies each year.

 [Obtaining of ISO 14001 Certification](#) (PDF:300KB)

## Environmental Performance System

In order to implement the PDCA cycle for environmental sustainability management, it is essential to collect a significant amount of environmental performance data on energy, waste, chemical substances, and water, etc. at each business site in a prompt and accurate manner. Panasonic has developed and introduced an environmental performance system as a means of globally collecting and managing environmental data from all our manufacturing sites. With this system, progress of initiatives are checked and issues are identified to help achieve our targets.

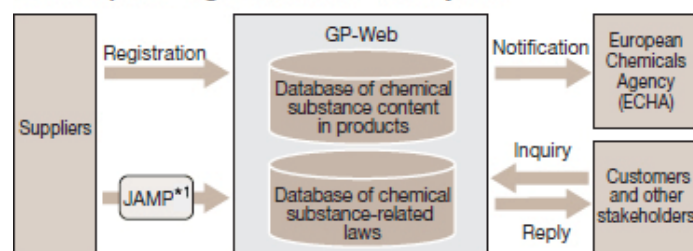
### ■ Operation of the Environmental Performance System



## GP-Web

Panasonic has developed and implements its own chemical substance management system, GP-Web, which is compatible with industry standards for information disclosure in this area. Through this system, we gather information from about 10,000 suppliers of components and materials for our products, both inside and outside Japan, concerning the chemical substances used. Additionally, in order to reinforce the foundations of environmental sustainability management, we are also working on developing a system to measure the size of contribution in reducing CO<sub>2</sub> emissions through products and the status of recycled resource usage.

### ■ Conceptual Diagram of the GP-Web System



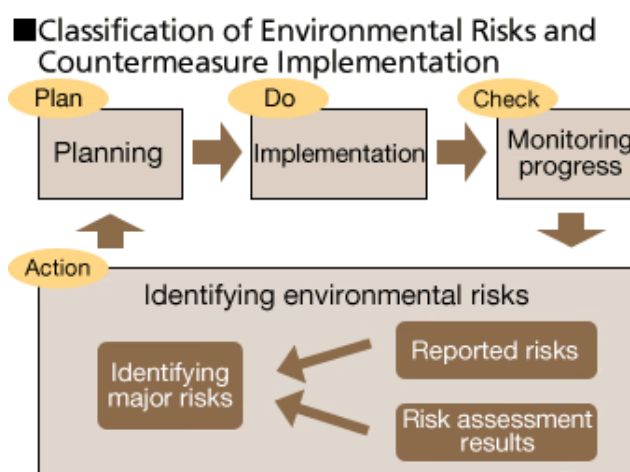
\*1 Joint Article Management Promotion Consortium.

## Group-wide Systems to Manage Environmental Risks

As a tool to continuously reduce environmental risks, Panasonic has established an Environmental Risk Management System specific to each Company and promotes (1) regular identification of environmental risks and group-wide management and (2) ensuring quick responses to reported environmental risks.

To identify environmental risks and implement the management system, the environmental risks that need to be managed are first determined based on the actual environmental risks reported from Companies and risk assessment results conducted across the entire company. These risks are then classified according to their occurrence frequencies and the degree of impact on business. Risks classified as major and thus require strict control are subject to the PDCA approach, where countermeasures are established and implemented, and progress is checked and ensured.

When environmental risks are identified, the affected Companies and related divisions at the Head Office and Regional headquarters collaborate to promptly implement emergency measures and recurrence prevention measures adapted to the specific risk level. Also, the management flow in the event of an identified risk is standardized to prevent related secondary risks caused by uncertainty and confusion.



## Environmental Compliance Management at Factories

Panasonic manages its environmental systems in full compliance with laws and regulations.

We regularly measure emissions of gas, wastewater, noise, odor, etc., and introduce preventative measures for cases that may lead to serious violations. Such information is shared both internally and externally to fulfill our corporate responsibility for information disclosure.

In fiscal 2013, there was one case of environment-related legal violation in Japan and two outside Japan. In response, we made the necessary notifications to local governments and implemented countermeasures.

### Cases of Violations of Laws and Ordinances Related to Environmental Pollution (such as exceeding the standard legal level, etc.) in Fiscal 2013

Region	Air	Water quality	Noise	Odor	Waste	Total
Global (including Japan)	0	2	1	0	0	3
Japan	0	0	1	0	0	1

## Managing Waste Management Risks

Inappropriate disposal of waste can cause environmental problems, as well as inconvenience and concerns to the public. In order to prevent this problem, especially outside of Japan, we have developed with local specialists waste disposal control checklists for each country, based on local laws that serve as the standard for factory waste management, subcontractor selection, etc. In addition, extensive efforts are being made to train personnel specializing in waste management, and training programs and local study sessions are organized and held in Asia and Europe to gain higher management skills.

## Measures Against Soil and Groundwater Contamination

In the latter half of the 1980s, soil and groundwater contamination due to chlorinated organic solvents was detected at some of Panasonic's sites. In response, we have conducted anti-contamination activities across the company. In fiscal 2003 we began enhancing our surveys and measures to comply with relevant laws and regulations, including the Soil Contamination Countermeasures Act, which was enforced in Japan in 2003, and in fiscal 2004 started implementing measures to place all our bases across the globe under Panasonic's management supervision with regard to soil and groundwater.

Specifically, we conduct onsite inspections and interviews at the bases, in addition to surveying their use of VOCs and heavy metals. Furthermore, we implement surface soil surveys within the premises. For the sites where contamination was detected beyond the regulatory pollution standards, we conduct detailed borehole surveys to identify the boundaries of the contaminated areas and take remedial measures.

As a result of these efforts, we were able to place all our bases under management supervision in fiscal 2009. Furthermore, in fiscal 2011, the management supervision scheme was purpose-specifically reorganized and reinforced to establish a new management supervision scheme. With the highest priority given to preventing dispersion of pollution beyond our premises, this new scheme is implemented across all operating sites to further improve the level of measures against contamination.

### Soil and Groundwater Risk Management Policy

Conditions subject to management supervision	Procedure
Pollution dispersion prevention beyond Panasonic premises	<ol style="list-style-type: none"> <li>1. Conduct historical surveys</li> <li>2. Determine and install monitoring wells at the premises' borders</li> <li>3. Analyze groundwater at the borders</li> <li>4. Check possibility of pollution from external sources</li> <li>5. Report to management department</li> <li>6. Determine the external pollution dispersion prevention methods</li> <li>7. Install the external pollution dispersion prevention methods</li> <li>8. Install assessment wells</li> <li>9. Begin assessments (monitoring)</li> </ol>
Thorough pollution source elimination	<ol style="list-style-type: none"> <li>10. Conduct brief status check</li> <li>11. -1. Horizontal direction detailed analysis -2. Vertical direction detailed analysis</li> <li>12. Determine the magnitude of pollution</li> <li>13. Discuss the areas and methods of purification</li> <li>14. Conduct purification and install pollution dispersion prevention measures</li> <li>15. Monitor pollution source (groundwater) after purification</li> <li>16. Report purification completion to management department</li> </ol>



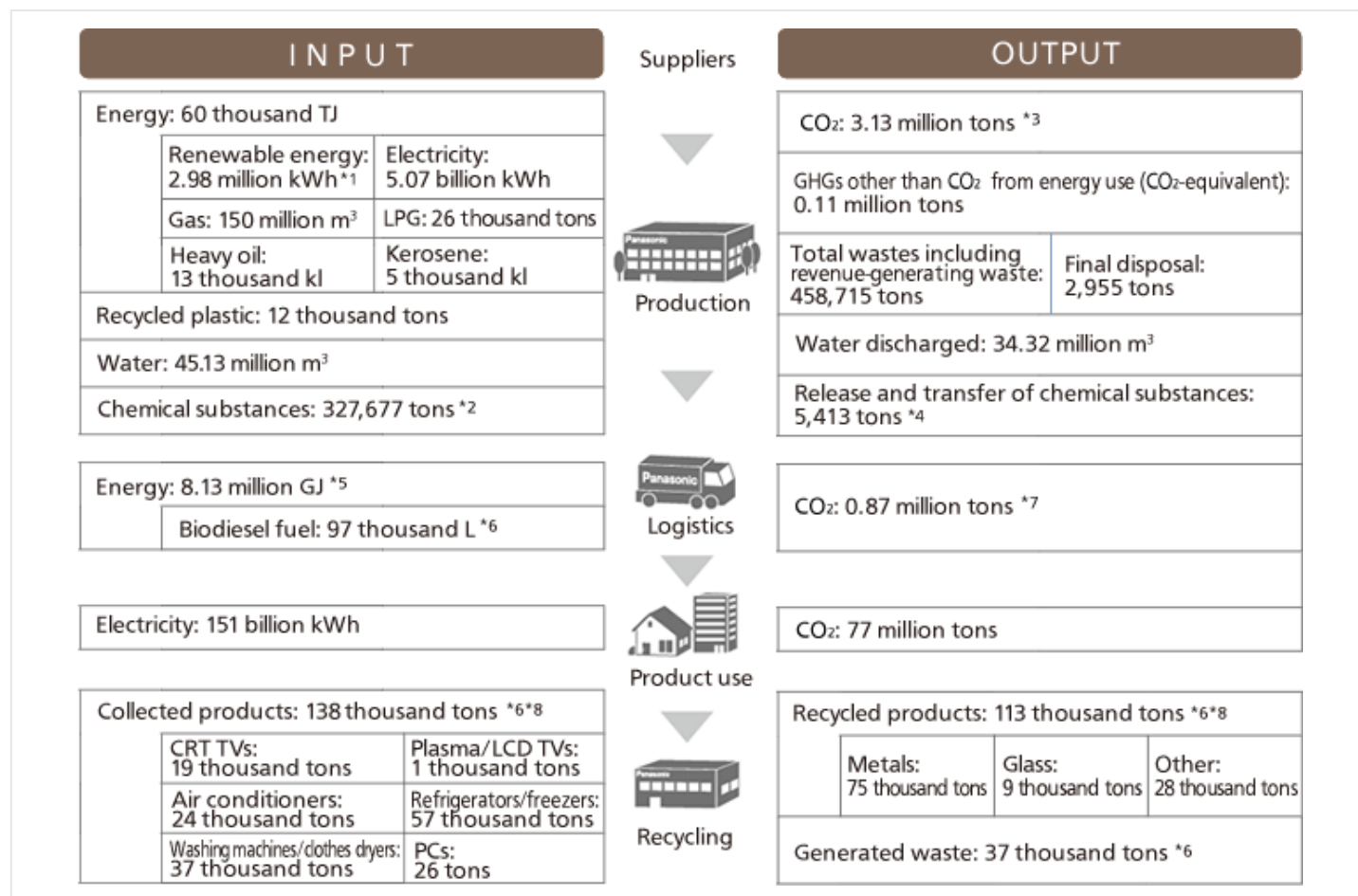
## Soil and Groundwater Pollution Surveys and Remedial Measures for Fiscal 2013

Region	Number of sites that completed remedial measures	Number of sites currently taking remedial measures
Global (including Japan)	5	58
Japan	4	51

### Initiatives for PCB Pollution

Panasonic discontinued the production of equipment containing polychlorinated biphenyls (PCBs) in Japan in 1972 and has since been strictly managing its PCB waste. With the enforcement of the Act on Special Measures concerning Promotion of Proper Treatment of PCB Waste in July 2001, optimized storage, decontamination, and notifications are being practiced in compliance with the law. 1,764 of 2,281 units including transformers and capacitors using PCBs submitted under the early registration scheme were treated as of March 31, 2013 by Japan Environmental Safety Corporation as our subcontracted PCB waste disposal operator. We will continue to treat PCB waste towards March 31, 2027, which is the legally designated deadline by which decontamination is to be completed.

## Overview of Environmental Impact From Business Operation



### Scope: Global

Production: 300 manufacturing sites

Logistics: Logistics stage of procurement, production, marketing and waste by partner companies and Panasonic.

Product use: Lifetime power consumption (a) of major products <sup>\*9</sup> with large amounts of energy use and CO<sub>2</sub> emissions (b) associated therewith.

a = Annual power consumption of a model sold <sup>\*10</sup> x Sales quantity x product life <sup>\*11</sup>

b = Annual power consumption of a model sold <sup>\*10</sup> x Sales quantity x product life <sup>\*11</sup> x CO<sub>2</sub> emission factor <sup>\*12</sup>

Recycling: Recycling of products means to use by oneself or to make into a state available for sale or free of charge the components and materials of a separated product.

<sup>\*1</sup> Figures from photovoltaic and biomass sources. Heat pumps not included.

<sup>\*2</sup> Object substances are based on the Panasonic Chemical Substances Management Rank Guidelines (for factories), including the substances in the Pollutant Release and Transfer Registers.

<sup>\*3</sup> The factors related to fuels are based on the Guidelines 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 (kg-CO<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 factors for each country are used for electricity purchased outside Japan.

<sup>\*4</sup> Release amount: Includes emissions to air, public water areas, and soil.

Transfer amount: Includes transfer as waste and discharge into the sewage system. Recycling that is free of charge or recycling where Panasonic pays a fee for treatment under the Waste Management Law is included in "Transfer." (Different from the transferred amount reported under the PRTR Law.)

<sup>\*5</sup> Intra-region outside Japan not included. Former SANYO Electric not included in international transportation.

<sup>\*6</sup> Figures for Japan.

<sup>\*7</sup> Former SANYO Electric is not included in the intra-region outside of Japan and international transportation.

<sup>\*8</sup> Air conditioners, TVs, refrigerators/freezers, washing machines/clothes dryers, and PCs.

\*9 Household air conditioners, commercial air conditioners, household fluorescent/silica lamps, LED lamps, LED lighting equipments, refrigerators, EcoCute, LCD TVs, plasma TVs, IH cooking heaters, dish washer and dryers, bathroom ventilator-driers, dehumidifiers, extractor fans, washing/drying machines, fully-automatic washing machines, electronic rice cookers, microwave ovens, warm-water bidets, irons, hair dryers, air purifiers, under-rug heaters, vacuum cleaners, BD recorders, electric thermal pots, clothes dryers, extractor hoods, household facsimiles, telephones, etc.

\*10 For each product category, the model that was sold in the largest quantity in the region was selected.

\*11 Number of years during which spare parts for the product are available (defined by Panasonic).

\*12 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).

## Environmental Accounting

Panasonic globally collects data on its environmental conservation costs and economic benefits obtained through its environmental activities in relation to generated/controlled environmental impact. This data is internally utilized as basic information for our continuing environmental sustainability management.

### Environmental Accounting for Fiscal 2013

(million yen)

Environmental conservation in factories	
Investments *13	6,570
Expenses *13 *14	1,494
Economic benefit	5,249

\*13 Where an entire amount of investment and expenses cannot be regarded as environmental conservation costs alone, the difference or appropriate portions (divided proportionally) are not calculated.

\*14 Expenses include a cost of capital investment depreciation.

### Environmental Conservation Benefits for Fiscal 2013 (in physical terms)

Categories	mission reduction	Reference indicator: environmental impact	
		Fiscal 2012	Fiscal 2013
CO <sub>2</sub> emissions from production activities	0.43 million tons	3.56 million tons	3.13 million tons
Human Environmental Impact	146 thousand counts	955 thousand counts	809 thousand counts
Final disposal of waste	2,054 tons	5,009 tons	2,955 tons
Water consumption	8 million m <sup>3</sup>	53 million m <sup>3</sup>	45 million m <sup>3</sup>

### Economic Effects for Customers for Fiscal 2013

Electricity cost reduction from product usage (global)	
Reduced amount of electricity *15	67 billion kWh
Reduced electricity costs *16	1,050 billion yen

**\*15** Calculated under the same conditions as when determining [the size of contribution in reducing CO<sub>2</sub> emissions through energy-saving products](#) .

**\*16** Electricity costs were set for each region based on IEA Statistics.

# History of Environmental Activities

Era	year	Panasonic Group	World	Japan
-1970s	1967			· Basic Law for Environmental Pollution Control
	1968			· Air Pollution Control Law enacted
	1970	· Pollution Survey Committee established		· Water Pollution Control Law enacted · Waste Disposal and Public Cleansing Law enacted
	1971			· Environment Agency established
	1972	· Environmental Management Office established	· U.N. Conference on Human Environment held in Stockholm (Declaration of Human Environment)	
	1973		· First oil shock occurred	
	1975	· Environmental Management Regulations enacted		
	1979		· Second oil shock occurred	· Energy Conservation Law enacted
1980s	1985		· Vienna Convention for the Protection of the Ozone Layer adopted	
	1987		· Montreal Protocol on Substances that Deplete the Ozone Layer adopted · World Commission on Environment and Development (the Brundtland Commission) advocated the concept of sustainable development	
	1988	· CFC-reduction Committee established		· Ozone Layer Protection Law enacted
	1989	· Environmental Protection Promotion Office		
1990s	1991	· Matsushita Environmental Charter (Environmental Statement and Code of Conduct) enacted · Matsushita Product Assessment adopted and implemented		· Keidanren Global Environment Charter enacted by Japan Federation of Economic Organizations · Law for Promotion of Effective Utilization of Resources enacted
	1992	· Environmental Policy Committee established	· The Earth Summit held in Rio de Janeiro, Brazil; Agenda21 and Rio Declaration on Environment and Development adopted · United Nations Framework Convention on Climate Change adopted	
	1993	· Matsushita Environmental Voluntary Plan (Year 2000 targets) adopted · Matsushita Group's global environmental internal audits launched		· The Basic Environment Law enacted
	1995	· Acquired Environmental Management System Certification at AV Kadoma Site (first in the Matsushita Group)	· First Conference of Parties to the U.N. Framework Convention on Climate Change (COP1) held in Berlin	· Containers and Packaging Recycling Law enacted
	1996		· ISO 14001 International Standard on Environmental Management Systems launched	
	1997	· Corporate Environmental Affairs Division (CEAD) established · Environmental Conference established (held semi-annually)	· COP3 held in Kyoto and adopted the Kyoto Protocol	· Keidanren Appeal on the Environment announced by Japan Federation of Economic Organization
	1998	· Love the Earth Citizens' Campaign commenced  · Recycling Business Promotion Office established  · First environmental report (1997) published		· Home Appliance Recycling Law enacted (took effect in 2001) · Law Concerning the Promotion of the Measures to Cope with Global Warming enacted · Energy Conservation Law revised: Top Runner Approach introduced
	1999	· Green Procurement launched  · Chemical Substances Management Rank Guidelines established · Acquired ISO14001 Certification in all manufacturing business units		· PRTR (Pollutant Release and Transfer Register) Law enacted
2000s	2000	· Lead-free Solder Project commenced  · Held first environmental exhibition for general public in Osaka	· Global Reporting Initiative (GRI) issued The Sustainability Reporting Guidelines	· Basic Law for Establishing the Recycling-based Society enacted · Law for Promotion of Effective Utilization of Resources enacted
	2001	· Environmental Vision and Green Plan 2010 adopted  · Held Environmental Forum in Tokyo and Freiburg, Germany · Panasonic Eco Technology Center launched	· Reached final agreement on the actual rules of Kyoto Protocol in COP7 held in Marrakesh	· Reorganized into the Ministry of the Environment  · Law Concerning Special Measures against PCBs enacted
	2002	· Panasonic Center Tokyo opened	· Johannesburg Summit (Rio+10) held	· Kyoto Protocol ratified · Vehicle Recycling Law enacted · Law for Countermeasures against Soil Pollution
	2003	· Declared "Coexistence with the Global Environment" as one of the twin business visions · Factor X advocated as an indicator for Creating Value for a New Lifestyle · Completely introduced lead-free soldering globally · Super GP Accreditation System launched · Achieved zero waste emissions in Japanese manufacturing business sites (ongoing program) · Held Environmental Forum in Tokyo	· EU's WEEE Directive was enacted	
	2004	· Environmental Vision and Green Plan 2010 revised  · PCB Management Office established · Superior GP Accreditation System launched		· Prohibited manufacturing and use of products containing asbestos in principle
	2005	· Participated in Expo 2005 Aichi, Japan as an official sponsor · Green Plan 2010 revised  · Continued with the nationwide Lights-out Campaign  · 3R Eco Project launched · Completed the elimination of specified substances (6 substances) in products · Matsushita Group's Green Logistics Policy · CF Accreditation System introduced · Panasonic Center Osaka opened · Eco & U House opened · Installed the first commercial household fuel cell cogeneration system in the new official residence of the Japanese Prime Minister · Won the first place in Nikkei Environmental Management Survey	· Kyoto Protocol entered into force	· Expo 2005 Aichi, Japan held  · National campaign against global warming "Team - 6%" launched · Marking for the presence of the specified chemical substances for electrical and electronic equipment (J-Moss) established

Era	year	Panasonic Group	World	Japan
2000s	2006	<ul style="list-style-type: none"> <li>Environmental specialist position established</li> <li>ET Manifest introduced into all Panasonic's manufacturing sites in Japan</li> <li>Realized lead-free plasma display panels and introduced them to the market</li> <li>Full-fledge introduction of biodiesel fuel in logistics</li> </ul>	<ul style="list-style-type: none"> <li>Restriction of Hazardous Substances (RoHS) Directive took effect in EU</li> </ul>	<ul style="list-style-type: none"> <li>Relief Law for Asbestos Victims enacted</li> <li>Energy Conservation Law revised: new cargo owner obligations, widened product scope of its application, and top runner standard revision</li> </ul>
	2007	<ul style="list-style-type: none"> <li>Energy conservation activities at our factories in Malaysia approved as CDM project by the U.N.</li> <li>A new environmental mark 'eco ideas' introduced</li> <li>Panasonic Center Beijing opened</li> <li>Environmental Forum in China held</li> <li>"Declaration of Becoming an Environmentally Contributing Company in China" announced</li> <li>Panasonic eco ideas Strategy announced</li> </ul>	<ul style="list-style-type: none"> <li>The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)</li> <li>Registration, Evaluation, Authorisation and Restriction of Chemicals entered into force in EU</li> <li>Framework for CO2 reduction agreed at Heiligendamm Summit (G8)</li> <li>The Bali Road Map for the post Kyoto Protocol agreed at COP13</li> <li>Administration on the Control of Pollution Caused by Electronic Information Products (China RoHS) came into effect</li> </ul>	<ul style="list-style-type: none"> <li>Cool Earth 50 announced by Prime Minister Abe</li> <li>21st Century Environment Nation Strategy formulated</li> <li>The Third National Biodiversity Strategy of Japan formulated</li> <li>Ministerial ordinance partially amending the Enforcement Regulation of the Waste Management and Public Cleansing Law promulgated</li> <li>Domestic Emissions Trading Scheme Review Committee established</li> <li>The Second Fundamental Plan for Establishing a Sound Material-Cycle Society formulated</li> </ul>
	2008	<ul style="list-style-type: none"> <li>Established the Corporate CO2 Reduction Promoting Committee</li> <li>Held environmental exhibitions, eco ideas World</li> <li>Home Appliances Company announced environmental statement in which named its Kusatsu site as eco ideas Factory</li> <li>Announced eco ideas Declaration in Europe</li> <li>Established Environmental Strategy Research</li> </ul>	<ul style="list-style-type: none"> <li>G20 (conference of key countries' environmental and energy ministers) held</li> <li>Hokkaido Toyako Summit held</li> </ul>	<ul style="list-style-type: none"> <li>Cool Earth Promotion Program announced by Prime Minister Fukuda</li> <li>Mislabeling incident of waste paper pulp percentage</li> <li>Long-term Energy Demand and Supply Outlook announced</li> <li>Japan's Voluntary Emission Trading Scheme</li> </ul>
	2009	<ul style="list-style-type: none"> <li>Opened the 'eco ideas' House to demonstrate a lifestyle with virtually zero CO2 emissions throughout the entire house</li> <li>Announced the Asia Pacific 'eco ideas' Declaration</li> <li>Announced eco ideas factories (in Czech, Malaysia, Thailand, and Singapore)</li> <li>San'yo Electric joined the Panasonic Group</li> </ul>	<ul style="list-style-type: none"> <li>China WEEE law promulgated</li> <li>New framework for countermeasures against global warming on and after 2013 (post-Kyoto Protocol), the Copenhagen Accord, was adopted at the COP15 (Copenhagen conference)</li> <li>Seeking to emerge from the Lehman collapse, countries throughout the world accelerated actions for the Green New Deal</li> </ul>	<ul style="list-style-type: none"> <li>Energy Conservation Law amended: Covered area expanded from factories to commercial sector facilities</li> <li>Flat-panel TV and clothes dryer added as covered products under the Home Appliance Recycling Law</li> <li>Eco point system started</li> </ul>
	2010	<ul style="list-style-type: none"> <li>Announced "Vision looking to the 100th anniversary of our founding in 2018"</li> <li>Announced new midterm management plan, "Green Transformation 2012 (GT12)"</li> <li>Announced eco ideas Declarations (Latin America, Asia Pacific, and Russia)</li> <li>Established 'eco ideas' Forum 2010 in Ariake,</li> <li>Launched Panasonic ECO RELAY for Sustainable</li> <li>Kasai Green Energy Park eco-friendly factory completed?</li> </ul>	<ul style="list-style-type: none"> <li>COP10 held in Nagoya Nagoya agreement made</li> <li>APEC meeting held in Yokohama</li> <li>Ruling party lost in US midterm election changes in anti global warming policy</li> <li>Cancun agreement made in COP16 Post-Kyoto framework still to be discussed</li> </ul>	<ul style="list-style-type: none"> <li>Draft legislation of Basic Law of Global Warming Countermeasures submitted but remained in</li> <li>Obligatory greenhouse gas emissions reduction started as a part of Tokyo Emissions Trading</li> <li>Waste Management and Public Cleansing Law amended: self treatment regulations tightened</li> <li>Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL) and Law concerning Pollutant Release and Transfer Register (PRTR) amended</li> </ul>
2010s	2011	<ul style="list-style-type: none"> <li>Announced North America &amp; Taiwan 'eco ideas' Declarations</li> <li>Announced establishment of Panasonic Dadi Dowa Summit Recycling Hangzhou Co., Ltd.</li> <li>Announced the Fujisawa Sustainable Smart Town Project</li> <li>Established Corporate Electricity Saving Division that bridges functions across the organization</li> </ul>	<ul style="list-style-type: none"> <li>Rare earth prices soared</li> <li>Revised RoHS directives enforced in EU</li> <li>COP17 (Durban Climate Conference): Agreement made on long-term future of the scheme, and the second commitment period for the Kyoto Protocol (Japan announced non-commitment)</li> </ul>	<ul style="list-style-type: none"> <li>Home appliance eco-point incentive program finished</li> <li>The Great East Japan Earthquake</li> <li>Revised Air Pollution Control Act and Water Pollution Control Act enforced</li> <li>Act on Special Measures Concerning Procurement of Renewable Electric Energy by Operators of Electric Utilities enacted (Feed-in tariff system to be enforced July 2012)</li> </ul>
	2012	<ul style="list-style-type: none"> <li>Business reorganization due to full acquisition of Panasonic Electric Works and SANYO Electric</li> <li>Commenced sales of Resources Recycling-oriented Product series</li> <li>Terminated production of household incandescent light bulbs</li> <li>Establishment of Environmental Management Group, Environment &amp; Quality Center, Global Manufacturing Division</li> <li>Communication of 'eco ideas' Declaration</li> </ul>	<ul style="list-style-type: none"> <li>United Nations Conference on Sustainable Development (Rio +20)</li> <li>"Doha Climate Gateway" adopted at COP 18 Doha 2012, to lay down a future legal framework in which all nations can participate by 2020 and onwards</li> <li>Revised WEEE Directive implemented in Europe</li> </ul>	<ul style="list-style-type: none"> <li>The Recycle Resource Project, national campaign by Ministry of the Environment, commenced</li> <li>2012 Japan Tax Reform Bill enacted (Environment tax came into force in October 2012)</li> <li>Feed-in tariff for recyclable energy put into effect</li> </ul>
	2013	<ul style="list-style-type: none"> <li>Established Fujisawa SST Management Company</li> <li>Announced new midterm management plan, "Cross Value Innovation 2015"</li> <li>Announced "A Better Life A Better World"</li> </ul>	<ul style="list-style-type: none"> <li>Phase I of the Kyoto Protocol ends. Japan's target expected to be achieved in combination with forest CO2 absorption and application of the Kyoto Protocol mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>Home Appliance Recycling Law for small household appliances enforced</li> <li>Basic Plan for Establishing a Recycling-Based Society implemented</li> <li>Amended Law Concerning the Rational Use of Energy &amp; Amended Law Concerning the Promotion of Measures to Cope with Global Warming enforced</li> <li>Keidanren's "Action Plan Towards Low-Carbon Society" starts (until FY 2021)</li> </ul>



## Customer:Product Quality and Safety

### Policy

#### Product Quality Basic Concepts

In an effort to embody its basic management philosophy, Panasonic regards its product quality policy as being to "serve our true customers throughout the supply of products and services that will meet and satisfy the needs both of our customers and of society at large."

To realize that product quality policy, we are committed to the measures set out below.

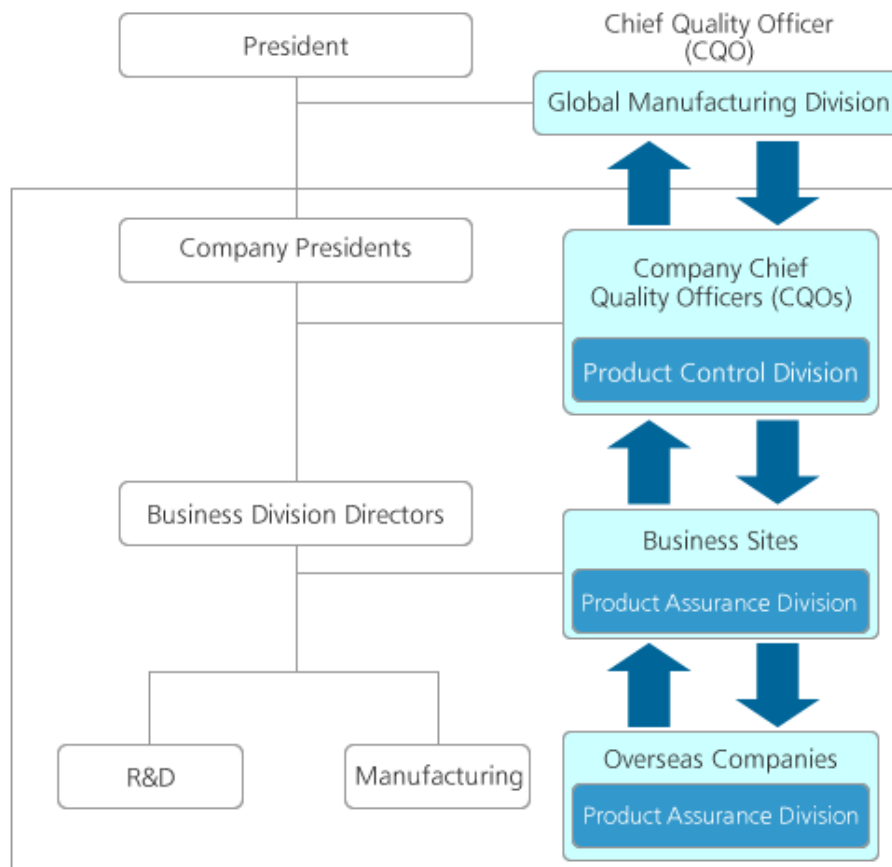
1. Accurately matching product quality to the needs of customers and society
2. Establishing a consistent product quality management system-from product planning, design and manufacture to use and consumption through to disposal-deploying product quality improvement activities based on collaboration and cooperation between all divisions
3. Accurately and sensitively ascertaining the real needs of customers and society and, possessing the technologies and skills to proactively incorporate those real needs into the manufacturing process, working to cultivate personnel who have the mindset of adhering to what is of benefit for customers and society.
4. Complying with laws, related legislation and regulations and the various standards appertaining to product quality.

#### Responsible Executive and Framework

Panasonic has a Chief Quality Officer (CQO) system.

Director in charge: Tsuyoshi Nomura, Managing Director (as of July 2013)

Each Company has built a self-regulated management structure that enables a self-contained quality assurance system under the supervision of CQOs.



### Quality Management System

We have prepared a publication called Quality Management System Development Guidelines so that all Panasonic Group companies can build their own self-contained quality assurance programs. Each Group company formulates a Panasonic Quality Management System (P-QMS). These initiatives are intended to bring about ongoing quality improvements, the prevention of quality problems and a reduction in quality variations.

In fiscal 2013, the Quality Management System Development Guidelines were expanded and updated to make P-QMS compatible with the systems solutions product business area, which is a growth field for Panasonic.

### Product Safety Initiatives

We are working on manufacturing that prioritizes product safety by reflecting on past product safety issues, including the incidents with FF-type kerosene heaters.

### Panasonic Code of Conduct (excerpts)

The commitment to ensuring product safety is clearly stipulated in Panasonic's Code of Conduct.

#### Chapter 2

#### II-2. Product Safety

##### (1) Priority on Safety

We will give the utmost priority to product safety in all design, development, manufacturing and marketing and sales activities. We will also strive to ensure safety in all our related activities, ranging from product installation to after-sales maintenance and repair.

##### (2) Provision of Information

To ensure that our products are used properly, thus preventing possible accidents, we will appropriately provide our customers with easy-to-understand instructions and explanations about proper operation and safe use.

We will disclose information of our environmental initiatives.

##### (3) Post-accident Measures

If we receive information regarding the safety of our products, we will investigate promptly to identify the cause(s). If we conclude that there may be a safety problem, we will cooperate fully and transparently with public authorities, taking prompt action where necessary to remove serious threats to public health and safety and to prevent any recurrence.

▶ [Panasonic Code of Conduct: "Product Safety"](http://panasonic.net/corporate/philosophy/code/11.html)  
<http://panasonic.net/corporate/philosophy/code/11.html>

### Basic Policy Regarding Autonomous Code of Conduct for Product Safety (Excerpts)

\*This basic policy was approved in a resolution of the Board of Directors at a meeting held on June 27, 2007, at Matsushita Electric Industrial Co., Ltd. (the company's name at that time).

Based on the Basic Management Philosophy, Panasonic and its group companies believe that reassuring customers on the safety of the products it produces and sells is a key management issue. Recognizing our social responsibility, we have formulated the Basic Policy Regarding Autonomous Code of Conduct for Product Safety, as shown below. We make every effort to make sure our products are safe, putting the customer first and ensuring the utmost in integrity.

1. Strictly follow laws and regulations
2. Establish a corporate culture of ensuring product safety
3. Create inherently safe product designs
4. Prevent accidents caused by improper use

5. Maintain quality assurance system to ensure product safety
6. Compile and disclose data on product accidents
7. Respond to product accidents

▶ [Basic Policy Regarding Autonomous Code of Conduct for Product Safety](http://panasonic.co.jp/company/philosophy/conduct/qualitypolicy/)  
<http://panasonic.co.jp/company/philosophy/conduct/qualitypolicy/>

\*Japanese only

## Strengthening the Groupwide Basis for Product Safety

For manufacturing that prioritizes product safety, we reorganized the Groupwide General Product Safety Committee in 2012, under which a Safety Technology Working Group and a Safety Standards Working Group were established. As a result, the development of safety technologies that were worked on out of remorse over the FF-type kerosene heater incidents in 2005, and the activities to maintain product safety standards, will steadily take hold and become permanent.

### 1. Activities of the Safety Technology Working Group

To take into account cases where customers use a product beyond its intended usage in the design stage, the Safety Technology Working Group developed scientific evaluation methods, such as accelerated aging tests to determine the durability of the materials, and collected data from which they produced a database. In fiscal 2013, they developed a simulation technique to estimate the life of solder and experimental methods for superaccelerated aging.

In addition, we have reached the stage where not only AV equipment but also white goods, such as room air conditioners and refrigerators, are beginning to be Internet-connected. Ensuring product security has become increasingly more important to safeguard the information assets held in those products. Regarding product security as part of product safety, Panasonic developed guidelines through, for example, threat analyses and enhanced its product security training. At the same time, bases for gathering risk information were set up not only in Japan but also in Europe, and a system built so that quick and decisive measures can be taken the moment any vulnerability is detected.

### 2. Activities of the Safety Standards Working Group

Complying with public safety standards goes without saying, but to increase safety we established design rules as a safeguard in product R&D as the Panasonic Corporation Safety Standards (PCSS).

The knowledge gained from R&D conducted into prolonged reliability technology is reflected in PCSS, which have made the standards more stringent with regard to a number of important safety matters, including prolonged use, measures to make materials nonflammable, and preventing products from toppling over.

In 2012, the Group worked to improve product safety standards in order to prevent the risks that are expected to arise in new business fields.

With regard to the use of renewable energy, as represented by solar power generation systems, we view the power shortages caused by the Great East Japan Earthquake as a turning point to increase customer interest.

Conventional domestic products are operated by consuming electric power supplied from infrastructure, but energy creation equipment, such as solar power generation systems and fuel cells, and home storage battery systems that use Li-Ion batteries can themselves generate, accumulate and discharge electricity. From the product safety perspective they have properties that are different from conventional home appliances. For instance, this equipment operates on high-voltage, high-capacity direct current (DC). In addition, the batteries will degrade over time. Li-Ion batteries can cause unsafe events such as catching fire through overcharging. We will need to have adequate safety measures in place to deal with these events.

For this reason, we formulated the Panasonic Corporation System Safety Standards (PCSSS) in fiscal 2013 with systems including energy creation and storage management systems in mind.

## Product Safety Training

Panasonic employees undergo ongoing training to assist in creating the culture in which manufacturing prioritizes product safety. Targeting the heads of business sites, product quality management study meetings for managers emphasize making product safety of paramount importance in product quality management. At product safety design training sessions aimed at managers and members of design teams in Japan and overseas, specific examples of failures from inside and outside of company are provided, and tuition given on Group-wide standards to ensure product safety and on scientific methods to prevent accidents involving product safety.

In 2012, a training DVD was made featuring a compilation of product safety failure phenomena that easily arise. Extensive use of the DVD was made in training sessions so that all technical personnel could better understand ways to prevent those phenomena from occurring.

In addition, engineers meet amongst themselves to learn in person about product safety at a Product Safety Forum, which was held on eight occasions during fiscal 2013. Know-how gained at the business division level is disseminated to engineers on a Group-wide basis.

## Universal Design (UD) Policy and Measures

### ▸ Universal Design

<http://panasonic.net/design/ud/>

#### UD Policy

The object of our company's UD is to provide greater consideration to more people through its products and services, thereby realizing a lively, comfortable and richer lifestyle.

#### 6 Basic Principles of UD

We work with these six basic principles to actualize our UD Policy.

1. Considerations for making operations easily understandable
2. Considerations for using easy-to-understand indications and expressions
3. Considerations for providing users with stress-free postures and movements
4. Considerations for users' movements and space
5. Considerations for the users' safety and peace of mind
6. Considerations for the operating environment

#### Exploring New Customer Value by UD

With the aim to expand the market, we are able to not only offer convenience and comfort through our UD activities, but also introduce our products to customers who, up till now, have not been able to use these products.

## Accident Report

### Progress in Response to Incidents Related to 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 hospitalization and accidental death. Panasonic has taken these incidents very seriously and has continued to take 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 2013, led by the staff of the Corporate FF Customer Support & 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.

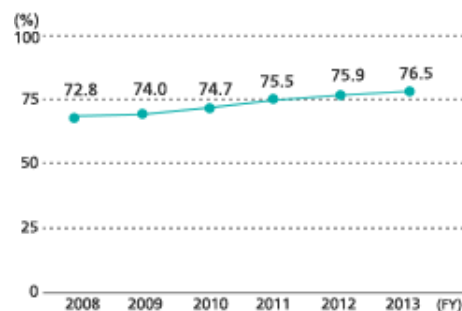
The local search activities focused on the following:

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 newspaper inserts and the utilization of Town Plus, a direct mailing service, to approximately 4.3 million households in coldweather districts.

In fiscal 2013, we added 857 units to our list of products discovered or confirmed to have been discarded. In total, 116,357 units were recorded, bringing the percentage of total units recalled to 76.5% as of March 31, 2013.

<Graph: Ratio of identified units\* to total units sold (%)>



\* Identified units includes recalled product units, units still in use after inspection and repair, units confirmed to have been disposed of by customers, etc.

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

<b>Contact:</b>	Panasonic Corporation, Corporate FF Customer Support & Management Division
<b>Toll-free number:</b>	0120-872-773 (dedicated line in Japan for FF-type kerosene heaters)
<b>Hours:</b>	9am-5pm (excluding weekends and holidays) Messages can be left on an answering service outside these hours.
<b>Toll-free fax number:</b>	0120-870-779 (dedicated line in Japan for FF-type kerosene heaters)

## Product Recall Notifications

In fiscal 2013, Panasonic issued the following product recalls to prevent accidents.

- Product model: Dehumidifiers with model numbers F-YHA100/YHB100  
Date of manufacture: December 2004 - January 2007  
Details: <http://panasonic.co.jp/es/peses/info/important/12052401.html>  
\*Japanese only
- Product model: Ball-shaped fluorescent lights (Sanyo Electric brand) with model numbers EFG25EL/20-HX and EFG25ED/20-HX  
Date of manufacture: October 2005 - September 2010  
Details: [http://panasonic.co.jp/sanyo/info/products\\_safety/120614.html](http://panasonic.co.jp/sanyo/info/products_safety/120614.html)  
\*Japanese only
- Product model: LCD projectors with model numbers TH-AE200/AE300/AE500/AE700,LP-Z3  
Date of manufacture: September 2002 - December 2005  
Details: <http://panasonic.jp/support/info/ZA.html>  
\*Japanese only
- Product model: Dish washer and dryer (Sanyo Electric brand) with model numbers DW-S2000/S2100/SJ2000, etc.  
Date of manufacture: December 2000 - November 2001  
Details: <http://panasonic.co.jp/sanyo/news/2013/01/22-1.html>  
\*Japanese only

## Information about Serious Product Accidents

Based on our Basic Policy Regarding Autonomous Code of Conduct for Product Safety and the Consumer Products Safety Act in Japan, Panasonic publishes information about serious product accidents\*, accidents that may have been caused by its products\*, and accidents for which it is unknown whether its products were a causal factor.

\*Serious product accidents are accidents as defined in the Consumer Products Safety Act, as follows:

1. Fatal accident
2. Accident that caused serious injury (injuries and illnesses requiring medical treatment for longer than 30 days) and/or physical disability
3. Incidents of carbon monoxide poisoning
4. Fire accident (confirmed as a fire by fire department)

\*\*Accidents that may have been caused by a product are defined as accidents involving gas and kerosene equipment, and accidents involving products other than gas and kerosene equipment. Panasonic quickly publishes information about accidents that may have been caused by a product, and accidents for which it is unknown whether its products were a causal factor.

### Information about Serious Product Accidents

[http://panasonic.co.jp/info\\_psc/](http://panasonic.co.jp/info_psc/)

\*Japanese only

## Customer:Customer Satisfaction

### Policy

#### Our Basic Approach to Customer Satisfaction

Since its foundation, Panasonic's management philosophy has been to contribute to society through its products and services while always placing the customer first. Based on this philosophy, we aim for higher customer satisfaction by developing and offering products, solutions and services that benefit the lifestyles of customers around the world.

Our customer service is based on the principles of true service that have been handed down from the founder of Panasonic—to sincerely, accurately and swiftly address customer needs with humility and appreciation. The goal of customer service is to earn the trust and confidence of the customer while providing them with happiness and peace of mind.

##### **The Fundamental Concept of Customer Satisfaction (the pursuit of customer satisfaction)**

The only way for those of us engaged in business to earn trust is to have everyone, regardless of whether they are working in the manufacturing division or the sales division, cater completely to the demands of the customers on all points and work strictly under the basic rule of producing or selling not even one product that cannot perform its function well.

Perfection can be reached only by paying careful attention not only to the manufacturing details but also to where our products are going and making efforts to completely satisfy the customers and provide flawless service.

Quality products campaign in 1940 by Konosuke Matsushita  
(From Matsushita Electric's 50-Year History)

##### **Service Philosophy (True service)**

**The customer's satisfaction is our satisfaction.**

**True service resides in mutual satisfaction.**

Service is an integral part of any business. A business that does not provide service is no business at all.

Service, therefore, is the duty and obligation of any business person. But, there's nothing more aggravating than service provided only out of a sense of duty. Customers can sense it.

Service means satisfying customers, and when we satisfy our customers, we in turn find satisfaction in a job well done. Satisfied customers and satisfied employees. This is what constitutes true service.

Konosuke Matsushita "Omoumama" August edition 1967 PHP magazine

### Responsible Executive and Framework

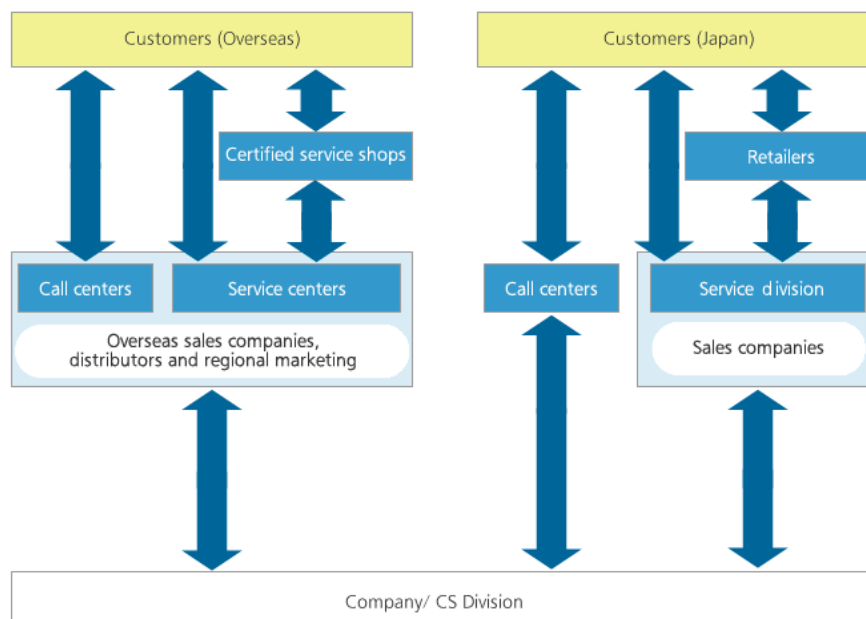
#### Structure for Promoting Customer Satisfaction

Customer service is a core business element for Panasonic, and the CS Division is charged with improving customer service by working with sales companies in countries and regions around the world. Developing initiatives based on the collective knowledge of our Japanese and overseas personnel, the CS Division strives to provide the best customer service through local CS departments that are the closest to our customers.

The CS Division gathers market-level information about product quality inside and outside Japan, as well as customer opinions and ideas, and feeds back this information to relevant businesses to improve product quality and safety. It also develops products that satisfy customer needs in various markets.



## (Customer Relations Framework)



## Domestic Service Structure in Japan

Under the four-company structure, Panasonic strives to provide best-in-class services which suit the specific attributes of each customer.

### A Service Network Spanning Across Japan

With dedicated service companies that stand by the side of customers throughout Japan, Panasonic, along with its retailer partners, are in a position to provide customers with services that kindle their everlasting appreciation for product safety and convenience. Repair services for consumer electronics are handled by Panasonic Consumer Marketing Co., Ltd. (PCMC-CS), while repair services for housing equipment and related products are handled by Panasonic Eco Solutions Techno Service Co., Ltd.

Our customer engineers, with close community connections and advanced expertise and know-how, provide quick and reliable on-site repair services at the customers' request. Our repair centers receive repair requests from customers 24 hours a day 365 days a year. For products that are connected directly with the daily essentials of life such as our all-electric home appliances, we aim to provide the fastest repair services possible.

Number of service centers operated by Panasonic Consumer Marketing Co., Ltd. :  
105 throughout Japan (as of June 2013)

### Measures to Enhance Repair Service Counters

Panasonic makes every effort to offer repair services that fit in with its customers' lifestyles, such as by providing customers with every convenience when they request repairs, including the acceptance of parcel deliveries of products in need of repair, registration for repair services over the web, and same-day repairs of LUMIX digital cameras and Let's note laptop PCs at its repair center in Akihabara, Tokyo.

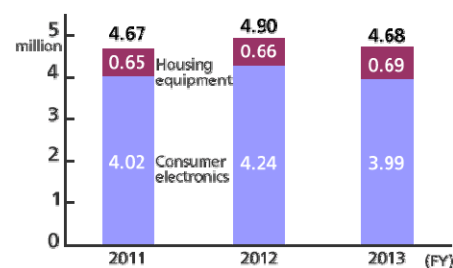


Repair stations for LUMIX digital cameras and Let's note laptop PCs in Akihabara, Tokyo

## Consultation Services for Solving Problems Quickly

Our Customer Care Center helps customers (regarding product selection) before and after they purchase a product (regarding operations). The Customer Care Center is open from 9am to 8pm all year round to help customers quickly solve any issues they have with Panasonic products. We have started using different telephone numbers for each product category, making it easier for customers to get in contact with the best service representative. Panasonic also provides information about frequently asked questions (FAQs) on its website to help customers resolve issues on their own, as well as the Helpful Information Phone Service, a 24-hour telephone-based automated audio service that provides information about each product and suggests ways to resolve common issues with products. For inquiries about lighting, information equipment, electrical equipment and materials, housing equipment and materials, and energy-related products like solar power generation and battery storage, in addition to supporting product selection and operations, Panasonic also provides specialized, expedited services 365 days a year to resolve issues relating to construction, installation and setup provided by its partners.

<Number of Inquiries Handled at Customer Care Center in Japan>



## Measures to Deliver Reliability and New Value in the Business-use Equipment Field

Our sales companies in the visuals, security, information communications, automobile, industrial air conditioning and other fields provide integrated support, ranging from product proposals to design & installation and repair services. Our sales companies deliver reliability and value with comprehensive solutions tailored to customer needs.

### Business-use Network Equipment

Sales companies in charge of business-use networking equipment and sales partners that sell our products are in a position to understand the unique needs of each customer and provide comprehensive solutions ranging from product proposals to system construction, sales, installation, maintenance, repairs, operation services, and cloud-based services.

Panasonic also delivers new value in terms of supporting business strategy execution and operational improvements at its customers. In this context, we strive for customer satisfaction through our consultation services, repair services, maintenance services and other ways that facilitate the building of trusting relationships with our customers. Panasonic aims to contribute to the productivity and profitability of its customers by providing ongoing support that exceeds expectations and addresses their specific needs.

### Automotive Equipment

Our sales companies in charge of automotive equipment collaborate with our retail partners to provide after-sales service for car navigation systems, car audio systems and other automotive products sold by Panasonic.

Moreover, Panasonic supports equipment supplied to automakers to address any requirements they may have.

## Overseas Service Structure

Amid an increasing number of customers that enjoy Panasonic products around the world, we aim to further improve customer satisfaction around the globe through initiatives tailored to each region, with sales companies in charge of customer satisfaction in each country. Through this overseas service structure, Panasonic provides worry-free, high-quality services from the customer's point of view.

### Overseas Network

Panasonic has made concerted efforts to build a global service network with the aim of offering services that ensure customer satisfaction around the world. In overseas markets including India, Brazil and other growing emerging countries, Panasonic will bolster its service structures to win the trust and satisfaction of its customers.

Number of Repair Service Centers (Fiscal 2013)

Region	Number of Repair Service Centers
Japan	105
North America	1,862
Latin America	1,079
Europe and CIS	903
Asia, The Middle East and Africa	2,841
China and Northeast Asia	849

\* Japan : Panasonic Consumer Marketing Co., Ltd. (PCMC-CS)

\* Northeast Asia: South Korea, Hong Kong and Taiwan

### Creating a Framework to Meet High Customer Expectations Globally

With the goal of pegging service quality at a high level and rationalizing service costs, Panasonic began in fiscal 2013 to create new standards and benchmarks to evaluate customer satisfaction around the world. We aim to offer better services by periodically sharing information about case studies and issues among the managers in charge of customer satisfaction at overseas sales companies and business companies.

## Rules and System

### Measures to Improve Quality of Our Customer Relations

#### Basic Regulations for Customer Relations

Based on its customer first management philosophy, Panasonic responds to all customers with the same high level of service quality in accordance with its established standards. In order to increase customer satisfaction and win their trust, Panasonic has drawn up Basic Regulations for Customer Relations (based on the JIS Q 10002 standard) that detail how to interact with customers and address any reasons for their dissatisfaction.

Each division responsible for customer relations periodically performs self-audits and works to continuously improve the quality of its responsiveness to customer concerns.

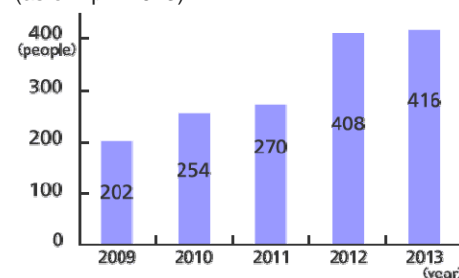
#### Fostering a Customer-Oriented Corporate Culture

Panasonic is proactive about obtaining Advisory Specialist for Consumers' Affairs qualifications for the purpose of fostering a corporate culture of putting the customer first. As of April 1, 2013, 416 employees of the Panasonic Group had obtained this qualification, the highest number among Japanese companies for the fourth straight year.

## [Advisory Specialist for Consumers' Affairs System]

This qualification is a business certification from the offices of the Prime Minister and Minister of Economy, Trade and Industry, with assessments and verifications undertaken by the Japan Industrial Association. The system aims to foster people able to act as a bridge between consumers, companies and government, by being able to quickly give the appropriate advice to consumers in response to their inquiries and complaints, and then convey their opinions in proposals to corporate management and government officials. (Source: The Japan Industrial Association homepage (in Japanese only).)

•Number of employees with this qualification  
(as of April 2013)



\* Includes the former Panasonic Electric Works Co., Ltd. from 2012 onward.

## Learning from Customer Opinions (VOC Activity)

At Panasonic, we view the Voice of Customers (VOC), which are assembled from points of contact with customers, such as Customer Care Center, salespeople and partners, showrooms and service companies, as priceless sources of information for developing products, improving product functions, enhancing quality, updating user manuals and catalogs, and enhancing marketing activities.

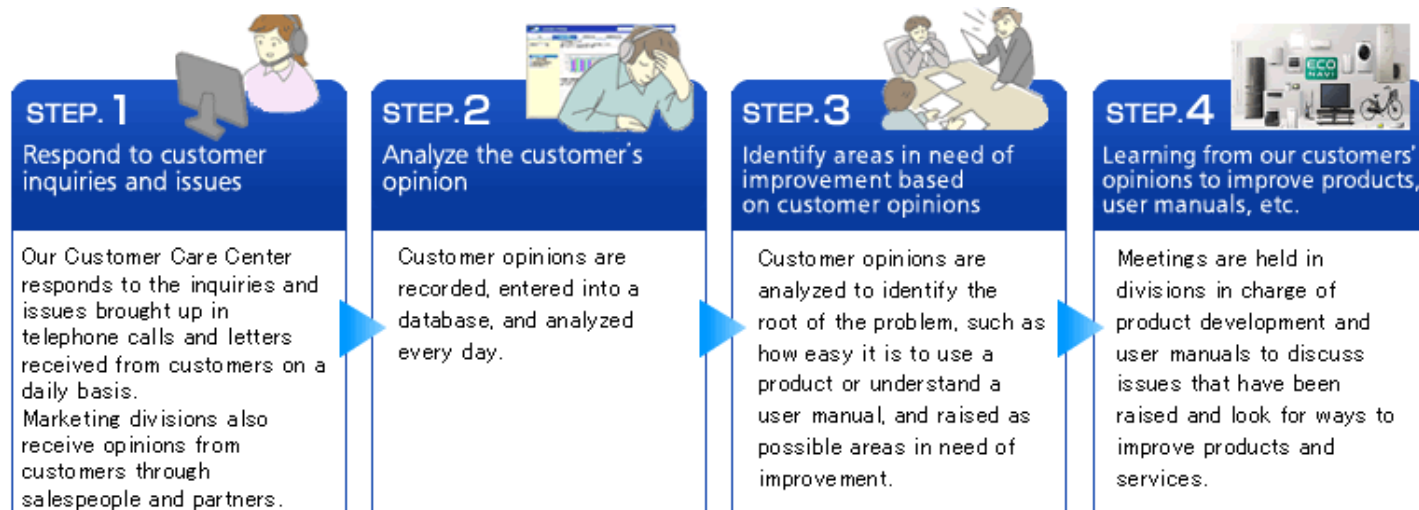
Using a range of methods, we analyze VOC to detect areas in need of continuous improvement, and this data is fed back to product planning, design, engineering, and quality divisions, as well as marketing and sales divisions.

VOC activity is a key element of the Panasonic management philosophy of improving customer satisfaction, and we are moving toward having all of our employees be conscious of the VOC in all of their work activities.

### ▶ VOC Activity

<http://panasonic.co.jp/cs/concept/voc/>

\*Japanese only



## Events and Tools to Educate Customers on Safety

### Educational Courses for Consumers

As a part of our contributions to society, we work with local governments and consumer groups around Japan to offer educational courses as a place for customers to learn about various topics in an enjoyable and easy-to-understand setting. These topics relate to areas of strong interest for consumers, such as "how to get the most out of consumer electronics", "home safety" as related to housing equipment, "efficient storage ideas", "solar power generation", and "remodeling". The topics may also address specific customer inquiries and needs from time to time.

## Educational Courses for Children

The Eco Solutions Company (an internal company) has sponsored Eco Lighting Classrooms, an introduction to LED lighting, and Eco and Solar Power Classrooms, an introduction to solar power, at elementary schools around the country to teach children about the environment and energy conservation.

In fiscal 2013, these classrooms were held at 166 elementary schools for 12,700 children.

Eco Lighting Classrooms were recognized as an excellent educational venue for eco and energy conservation with the Osaka Environmental Award sponsored by the Osaka Citizen Council to Create a Beautiful Environment.



Fiscal 2013 Osaka Environmental Award Received

## How-to-use Guides Available on Our Website

We have posted a guide for customers on how to properly use our consumer electronics products in a safe and ecologically sound way.

- ▶ In our recommendations for the safe use of consumer electronics:

<http://panasonic.co.jp/cs/aijoutenken/>

\*Japanese only

We demonstrate how to correctly use our consumer electronics products for the sake of longevity, safety checks to go over for each product, and how to use products safely by showing examples of how not to use them. These guides on our website are an important tool for enhancing customer awareness of safety.

- ▶ In our recommendations for saving electricity when using consumer electronics:

<http://panasonic.co.jp/cs/info/setsuden.html>

\*Japanese only

We describe how to use each of our consumer electronics products in ways that cut down on power consumption. This information is offered as a useful tool for conserving energy.

- ▶ On Mezase! Kaden King (Aim at Becoming the Consumer Electronics King!):

<http://panasonic.co.jp/cs/kaden/quiz/kmaster.html>

\*Japanese only

People take quizzes that test their knowledge on how to safely and comfortably use consumer electronics products, and try to score the title of Kaden King. This is a fun way to learn about safe product use and energy conservation.



### Panasonic Code of Conduct (excerpts)

The commitment to the proper use and management of information as well as the strict protection of personal information is clearly stipulated in Panasonic's Code of Conduct.

#### Chapter 2

##### II-4. Use and Control of Information

###### (1) Effective Use of Information

We will use our IT resources effectively and efficiently to collect, store, control, use, protect and dispose of management, technological, personal and other useful information so that it can be properly and effectively used without jeopardizing confidentiality.

###### (2) Information Security

We will endeavor to prevent any piracy or falsification, and prevent leakage of our information.

###### (3) Information Received from a Third Party

When we receive confidential information from a third party we will respect its confidentiality and afford it appropriate protection.

###### (4) Handling of Personal Information

Recognizing the importance of protecting personal information, we will gather, store, control, use, process and dispose of personal information appropriately in compliance with relevant laws and regulations. We will also seek to prevent the loss, falsification, or leakage of such information.

###### ▀ Chapter 2 II-4. Use and Control of Information

<http://panasonic.net/corporate/philosophy/code/13.html>

### 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.

## Policy for Protection of Personal Information

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In accordance with its Basic Management Philosophy, Panasonic aims to win the satisfaction and trust of its customers by providing superior products and services to society, while ensuring the utmost in integrity.

We seek to build better relationships with our customers, suppliers, shareholders, employees and other stakeholders.

To this end, we have put in place the following measures to appropriately handle and protect personal information.

1. A person responsible for the protection of personal information has been appointed to every organization within the Company in an effort to ensure that such information is managed appropriately.
2. In cases where you are asked to supply or register your personal information by which you can be identified, such as name, address, e-mail address, or telephone number, the Company will inform you of the purpose of use, as well as whom to contact with any related inquiries. You will only be asked to provide your personal information within the scope appropriate to the purpose.
3. The Company will make use of personal information only within the scope appropriate to the purpose of use to which you have agreed.
4. The Company will not supply or disclose your personal information to third parties except in cases where you have agreed beforehand, provides that the Company can disclose it when it is necessary; 1) to outsource the work or 2) for some other justifiable reason.
5. If you wish to review your personal information, please contact to the relevant contact person we show on the website where you supplied or registered your personal information. The Company will make the efforts to appropriately respond to your request.
6. The Company will make reasonable efforts to maintain and improve security to ensure that personal information is managed safely.
7. While complying with applicable laws and regulations, the Company will make ongoing efforts to improve and upgrade measures taken to protect personal information.

Established on April 1, 2005

Revised on October 1, 2008

Kazuhiro Tsuga

President

Panasonic Corporation

▸ [Policy for Protection of Personal Information](#)

[http://panasonic.net/site\\_info/privacy.html](http://panasonic.net/site_info/privacy.html)

## Rules and System

### ISO 27001

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Panasonic has obtained ISO 27001 certification at business divisions that handle its customers' personal information. ISO 27001, which conforms to the ISO/IEC 27001:2005 Information Security Management Systems standard, is given to companies that appropriately handle all sorts of information, including personal information.

A list of Panasonic business sites that have acquired ISO 27001 certification is available here.

▸ [Panasonic Corporation](#)

[List of business sites that have obtained ISO 27001 certification](#)

<http://panasonic.co.jp/info/privacy/list.html>

\*Japanese only



## Customer:Ethical Corporate Communications in Advertising

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.

### Basic Approach to Advertising

Advertising activities reflect the belief of founder Konosuke Matsushita that "we contribute to society through our business activities." The fundamental stance taken from this is that manufacturers producing quality products have a responsibility to disseminate information about those products broadly, accurately, and as quickly as possible.

This responsibility is even greater today. Giving the public information about all corporate activities, in addition to products, has become an important social responsibility. Panasonic's advertising activities fully reflect this broader responsibility.

### Related Links

Panasonic broadly discloses information about its corporate activities through various channels.

- Promotion & Advertising  
<http://panasonic.net/promotion/>
- Channel Panasonic (Video News)  
<http://ch.panasonic.net/>

### Compliance with Advertising Laws and Regulations

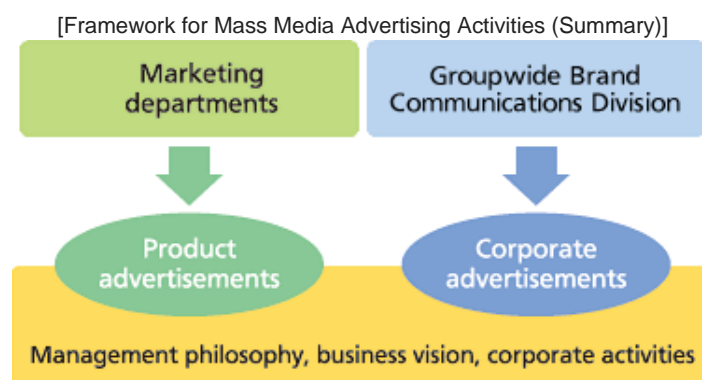
Panasonic conducts advertising activities in compliance with local laws, regulations, industry rules and other guidelines in every region to prevent any misunderstandings and misconceptions.

In Japan, for instance, our advertisements conform to provisions of the Law for Preventing Unjustifiable Lagniappes and Misleading Representation and other advertising laws and regulations.

We also comply with the "Advertisers' Ethical Code" of the Japan Advertisers Association, standards established by media companies and other guidelines.

To comply with laws and guidelines, we have on-the-job training programs for employees and hold seminars and other events for significant revisions to advertising laws and regulations. This ensures that advertising personnel have a thorough understanding of how to perform their jobs. Panasonic companies also take part in classes and seminars held by other companies and organizations and, when necessary, seek the input of specialists from outside the group.

### Framework



## **Guidelines and Approaches to Production of Advertisements**

Panasonic uses the following guidelines and approaches for television commercials, newspaper advertisements and other advertising activities.

- Advertising is an important social mission regarding business activities
- Advertising should convey the true spirit of a company
- Provide information that is accurate and easy to understand
- Never use inappropriate or annoying advertisements

## **Selection of Advertising Media**

Panasonic selects as its mass-media only companies that are well-known and respected in their respective regions and that permit the efficient use of advertising budgets.

# Fair Operating Practices:Policy

## Panasonic Code of Conduct

This code establishes our basic approach and expectations regarding sustainability. It is a unified global standard, published in 22 languages, that explains how our management philosophy should be implemented. Our code incorporates the essence of, among other things, 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 Guidelines for Multinational Enterprises.

- ▶ [Panasonic Code of Conduct](http://panasonic.net/corporate/philosophy/code/)  
<http://panasonic.net/corporate/philosophy/code/>

## Panasonic Code of Conduct (Excerpts)

The Panasonic Code of Conduct codifies our approach to fair business practices as a "public institution of society".

### Chapter 1: Our Core Values

#### An Enterprise as a Public Institution

Since our business is dependent on our customers and other stakeholders, we must remember that "an enterprise is a public institution," that must strive to fulfill its social responsibilities. In addition to listening to stakeholders' opinions, we must conduct our business activities transparently in order to be accountable. In short, we must continue to be fair, truthful, honest and swift in taking action to comply with our social responsibilities.

- ▶ [Our Core Values](http://panasonic.net/corporate/philosophy/code/04.html)  
<http://panasonic.net/corporate/philosophy/code/04.html>

### Chapter 2: Implementing the Code in Business Operations

#### II-3. Compliance with Laws, Regulations and Business Ethics

##### (1) Compliance with Laws, Regulations and Business Ethics

We will conduct business with integrity, a law-abiding spirit, and the highest ethical standards.

We will fulfill our tasks by always observing not only applicable laws and regulations, but also the highest standards of business ethics.

Compliance with laws, regulations and business ethics in all our business activities is essential to the survival of our business.

##### (2) Fair and Sincere Action

We will respect free and fair competition, and abide by all applicable antitrust (competition law) and other laws and regulations. All of our transactions shall be properly and fairly recorded.

We will not engage in bribery of any kind. We will be sensitive to, and shall abide by laws and regulations and social ethics that govern the offer of benefits of any kind, including gifts, meals and entertainment. In the same manner, we will not receive personal benefits from any of our stakeholders.

Moreover, we remain steadfast in our attitude to oppose any illegal group or organization.

##### (3) Thorough Observation of Relevant Laws and Regulations

To ensure that all employees observe applicable laws and regulations and respect their spirit, we will establish appropriate in-house codes and promote employee understanding through seminars and training.

##### (4) Prompt Redress and Strict Treatment for Violations of Laws and Regulations

If we suspect that our activities violate applicable laws, regulations or business ethics, we will report such information to a superior, or to the legal affairs section or other relevant section, or via an in-house notification hotline. Whistleblowers shall be protected from dismissal, demotion, or any other retaliatory treatment because of their well-intentioned reporting of possible violations of any law or regulation. We will ensure thorough and confidential treatment of information reported.

Once we have established that a law or regulation has been violated, we will immediately seek to remedy the violation, take appropriate action and prevent it from recurring.

## Fair Operating Practices:Responsible Executive and Framework

Director in charge: Ikusaburo Kashima, Senior Managing Director (as of July 2013)

We aim to thoroughly ensure compliance at business locations around the world via legal affairs departments established at each Company, business division, and overseas regional headquarters, and through directors and executive officers in charge of adherence to the Code of Conduct, as well as managers in charge of fair trade, export management, and functional groups.

## Fair Operating Practices: Rules and System

### Fair Trade

#### Rules Concerning Activities and Relationships with Competitors

Panasonic has rules concerning activities with competitors that were drawn up to prevent cartels, bid rigging and behavior that invites suspicion of these activities. These rules apply to all group employees.

The rules encompass the following.

- Prohibition of cartels, bid rigging and behavior that invites suspicion of these activities, such as exchanging information and making arrangements for product prices, quantities, performance and specifications
- Mandatory rejection of inappropriate behavior and reporting of possible violations of these rules
- Actions to take if there is a violation, and an internal leniency policy

#### Prior Informed Consent

Panasonic has a prior informed consent system in place, mandating that division directors and legal managers are informed prior to directors and employees establishing contact with competitors.

### Prevention of Corruption

#### Prohibition of Bribery of Public Officials

Panasonic has rules concerning interactions with public officials that prohibit the bribery of public officials and behavior that arouses suspicion of gift-giving.

These rules state that employees must not offer, promise, propose, or consent to anything that may benefit public officials in order to obtain or retain a business transaction.

The rules also lay out specific standards and approval processes for meals/entertainment and other benefits while meeting with public officials. The rules prohibit direct payoffs to public officials, as well as indirect payoffs to public officials through consultants, agencies, lobbyists and other business partners. Accordingly, the utmost care must be taken when evaluating and selecting business partners, and provisions prohibiting such bribery must be included in contracts with business partners.

If behavior in violation of these rules is discovered, the behavior is strictly dealt with while actions are swiftly taken to remedy the situation.

#### Entertainment Expenses

Expenditures for gifts to customers and business entertainment must follow a process that requires prior authorization, follow-up reports and confirmation that the expense was not for a public official. These rules are a part of our thorough efforts to prevent corruptive behavior before it can happen.

#### Ensuring Transparency in Political Contributions

Following Nippon Keidanren (Japan Economic Federation) 's perspective on political contributions, our purpose is to encourage policy integrity, the healthy development of representative democracy, and transparency in political donations, in the establishment of strict rules on political contributions.

Our political donations follow the rule of relevant laws, such as the Political Funds Control Act. At the same time, we undertake appropriate screening measures to confirm in advance that the recipients of donations are engaging in legitimate political activities and belong to organizations with which we can concur.

In Japan, political organizations are required by law to disclose income and expenditures of political funds. This information can be found in official gazettes, prefectural government publications, and websites.

## **Fair Procurement Activities**

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In Rules Concerning Business Entertainment Provided by Suppliers, etc., Panasonic has strict rules that prohibit the acceptance of after-hours dining and entertainment, monetary gifts, merchandise, real estate, accommodations and other forms of payoffs from current or potential future business partners from which Panasonic purchases goods or services.

In the event that a violation of these rules is discovered, it must be reported to one's manager and relevant divisions such as the personnel and legal affairs departments, or through a hotline established in accordance with internal reporting rules. Disciplinary action is also taken with persons found to have violated the rules.

## Fair Operating Practices: Performance Evaluation and Development

### Appointing Directors and Executive Officers Responsible for Ensuring Compliance with the Code of Conduct and Obtaining Written Pledges

Directors and executive officers are appointed at Panasonic as well as each Group company, business division, and subsidiary to ensure thoroughgoing compliance with the Company's Code of Conduct. At the same time, steps are taken to carry out appropriate education and training.

The Code of Conduct is distributed to all employees and is always available for reading. A written pledge is obtained from Directors, executive officers and employees regarding observance of the Code of Conduct when he/she enters the company, assumes an executive position or the Code of Conduct is revised. If a country's laws, regulations or other restrictions make it difficult or improper for Panasonic to obtain a written pledge, we make sure employees have received a copy of the Code of Conduct and related training.

### Compliance Awareness Month and the Compliance Committee

Panasonic has designated September as Compliance Awareness Month, during which it addresses risks and strives to embed awareness of ethical and legal compliance issues among employees around the world. Amid changes in business conditions and our operations, Compliance Awareness Month provides an opportunity to get an accurate grasp of evolving risks in specific business fields, divisions, countries and regions, as well as uncover signs of possible legal violations and misconduct.

During the month, we emphasize the importance of compliance throughout the organization through the communication of ethical and legal compliance policies as well as our stance by core management, including the president, company presidents, business division directors and regional representatives.

We also conduct a Compliance Awareness Survey during the month.

Since it was established in fiscal 2004, the Compliance Committee has been headed by the president and comprised of directors, executive officers and corporate auditors, who ensure compliance with the Anti-Monopoly Act, confirm the thorough implementation of companywide compliance measures throughout global operations, such as the prevention of corruption, and check on the current status of efforts at relevant business divisions.

### Compliance Training

Employees undergo training on the Code of Conduct when they enter the company, receive a promotion, and on other occasions.

Panasonic publishes the Compliance Guidebook as a tool for the practical application of the Code of Conduct. Having undergone several revisions since it was first published in October 2006, the Compliance Guidebook explains in easy-to-understand examples how employees should conduct their daily work activities, comply with laws and regulations, and meet the expectations of society. It includes 54 subjects considered especially important from a compliance standpoint.

### Examination and Reporting of Annual Adherence to and Application of the Code of Conduct

In order to embed a plan-do-check-act (PDCA) cycle into compliance, it is important to constantly monitor the effectiveness of implemented measures and the degree to which they have become established practices. For this reason, Panasonic confirms once a year that the Code of Conduct is being followed and applied as intended at all of its sites around the world. Specifically, Panasonic confirms that directors and executive officers have been appointed to ensure adherence to the Code of Conduct, education and training is given on matters related to the Code of Conduct, and written pledges to follow the Code of Conduct are obtained from employees.

These findings are reported to the auditing company as a part of internal control audits.

### Whistleblowing System

Panasonic has 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 for reporting monopolistic behavior; a Fair Business Hotline for our suppliers and customers; and a procedure to report financial and accounting matters to the Board of Corporate Auditors.

The Code of Conduct states that Whistleblowers shall be protected from dismissal, demotion, or any other retaliatory treatment because of their well-intentioned reporting of possible violations of any law or regulation. We will ensure thorough and confidential treatment of all information reported. Employees can raise concerns through any of these hotlines confidentially without fear of retaliation.



The company accepts anonymous reporting if a response is unnecessary.

In addition to a global hotline, Panasonic also has regional reporting systems in North America, Europe and Asia.

Panasonic strives to create an environment that facilitates the use of hotlines, and has contracted with external, independent service companies to provide the hotlines in North America and Europe.

## Fair Operating Practices:Performance

### Compliance Evaluations

#### Compliance Awareness Survey

Panasonic also conducts Compliance Awareness Surveys once a year on its employees.

The results of the surveys are analyzed by region, company and employee's position/title, and results are used in the planning of compliance-related measures as well as in solving challenges.

In fiscal 2013, we had 124,000 respondents to the survey in Japan and 38,000 overseas, for a total of 162,000 people in over 45 countries/regions that speak 18 different languages.

#### eLearning Data

In fiscal 2013, employees that attended classes numbered 22,000 in Japan and 15,000 overseas, for a grand total of 37,000 people in over 40 countries/regions with 23 foreign languages spoken. A total of 98 types of courses were offered.

#### Report on Violations in Fiscal 2013

In December 2012, Panasonic was informed that the European Commission issued a decision finding that a number of companies including Panasonic previously participated in an agreement to restrict competition in the sale of cathode ray tubes for televisions sold in Europe in violation of the EU competition law. Panasonic believes this decision is factually and legally erroneous, and has filed an appeal with the European General Court.

Panasonic has already exited the cathode ray tube business, but will state its arguments at court and seek fair judgment.

- [Fair Operating Practices:Rules & System "Fair Trade"](http://panasonic.net/sustainability/en/fair_practices/regulation/)  
[http://panasonic.net/sustainability/en/fair\\_practices/regulation/](http://panasonic.net/sustainability/en/fair_practices/regulation/)

### Respecting Fundamental Human Rights

#### Major Constituents of Panasonic's Policy on 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.



#### Panasonic Code of Conduct (excerpts)

The commitment to respect fundamental human rights is clearly stipulated in Panasonic's Code of Conduct.

##### Chapter 1: Our Core Values

(Omitted)

Global Perspectives - Global Conduct

As a global company, we must respect human rights and do our best to understand, acknowledge and respect the diverse cultures, religions, mindsets, laws and regulations of people in the different countries and regions where we conduct business.

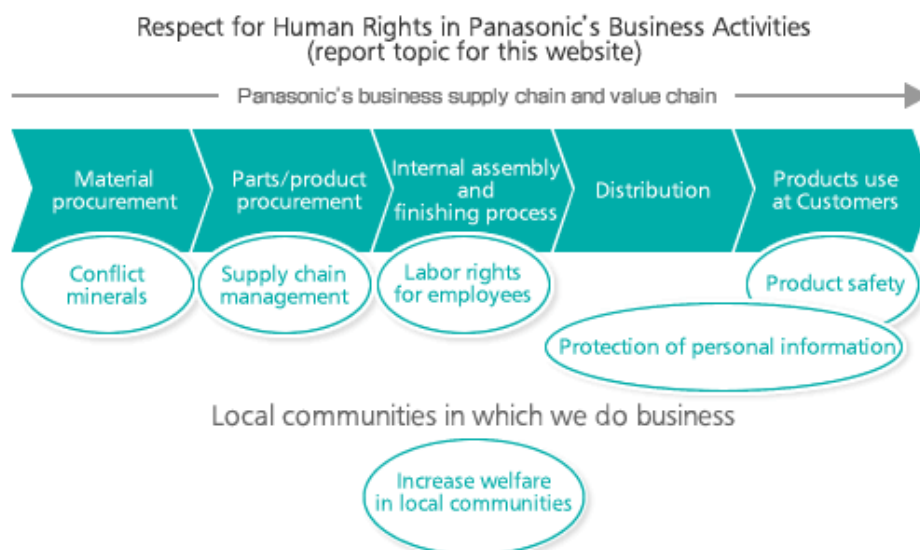
▶ [Click here for more information on Chapter 1: Our Core Values.](http://panasonic.net/corporate/philosophy/code/04.html)

<http://panasonic.net/corporate/philosophy/code/04.html>

- Panasonic supports the basic principles of the Universal Declaration of Human Rights, the International Labour Organization Declaration on Fundamental Principles and Rights at Work, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises as well as other guidelines. The essence of these principles has been incorporated in the Company's Code of Conduct.
- Panasonic consults with the Guiding Principles on Business and Human Rights endorsed by the United Nations Human Rights Council in June 2011. As a member of the Japan Business Council in Europe (JBCE), Panasonic also submits public comments regarding the ICT Sector Guidance being drafted by the European Commission.

## Respect for Human Rights in Panasonic's Business Activities

Example of Respect for Human Rights in Panasonic's Business Activities



### ▶ 【Conflict minerals】

Supply Chain: Conflict Minerals

[http://panasonic.net/sustainability/en/supply\\_chain/minerals/](http://panasonic.net/sustainability/en/supply_chain/minerals/)

### ▶ 【Supply chain management】

Supply Chain: Fundamental Human Rights of Employees

[http://panasonic.net/sustainability/en/supply\\_chain/regulation/](http://panasonic.net/sustainability/en/supply_chain/regulation/)

### ▶ 【Labor rights for employees】

Human Rights: Fundamental Human Rights of Employees

[http://panasonic.net/sustainability/en/human\\_rights/policy/index.html#02](http://panasonic.net/sustainability/en/human_rights/policy/index.html#02)

### ▶ 【Protection of personal information】

Customers: Information Security / Protection of Personal Information

<http://panasonic.net/sustainability/en/products/security/>

### ▶ 【Product safety】

Customers: Product Quality and Safety

<http://panasonic.net/sustainability/en/products/safety/>

### ▶ 【Increase welfare in local communities】

Local Community: Basic Stance toward Corporate Citizenship Activities

<http://panasonic.net/sustainability/en/community/policy/>

## Fundamental Human Rights of Employees

### Panasonic Code of Conduct (excerpts)

The Panasonic Code of Conduct states that management must make an effort to build constructive relationships and resolve any issues with employees.

#### Chapter 3: Employee Relations

The Company will respect human dignity and strive to provide an environment that encourages employees to realize their full potential. The Company will respect each employee's personality and motivation and, in appropriate circumstances, try to offer matching opportunities in other regions. By building such mutually benefiting relations between the Company and its employees, we will carry out the Basic Business Philosophy.

(Omitted)

#### (2) Respect for Human Rights

1. The Company will respect basic human rights and will work to ensure equal employment opportunities. No discrimination toward employees or others will be tolerated in speech or conduct, based on sex, age, nationality, race, ethnicity, creed, religion, social status, physical or mental disability or any other legally protected status.
2. The Company will not employ people against their will, and will not use child labor.  
The Company will comply with the employment laws and regulations of the countries and regions in which it conducts business.
3. Based on the full recognition that individuals are different and have different values, we will respect the privacy of each employee. We will strive to create a safe and pleasant workplace by avoiding speech or conduct that violates human rights, such as defamation, insults, sexual harassment or violent acts.

4. The Company will give due consideration to the health of its employees and will maintain a comfortable workplace that meets all applicable safety standards.
  5. Taking into account the laws and labor practices of each country, the Company will try to foster a good relationship with its employees and to resolve issues of, among others, workplace and working conditions by constantly having a sincere and constructive dialogue.
- ▶ [Click here for more information on Chapter 3: Employee Relations.](http://panasonic.net/corporate/philosophy/code/17.html)  
<http://panasonic.net/corporate/philosophy/code/17.html>

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## **Human Rights:Responsible Executive and Framework**

Director in charge: Yoshiaki Nakagawa, Managing Director (as of July 2013)

Departments in charge: Corporate Human Resources Group and Corporate Industrial Relations Group

## Human Rights: Rules and System

### Prohibition of Child Labor and Forced Labor

#### Age Confirmation in China and Asian Countries

In its hiring process, Panasonic follows the laws and regulations of the country and strictly monitors compliance with respect to fundamental human rights.

#### Respect for Human Rights of Immigrant Workers

Immigrant workers from other countries are afforded the same basic rights in hiring and onboarding processes based on strict compliance with the laws and regulations of each country.

### Prohibition of Discrimination and Humane Treatment

#### Hiring Rules

Panasonic bases its hiring decisions on the qualifications, skills and ambitions of the applicants, without regard to their age, gender or nationality. Our interviewers are trained to select applicants in a fair manner based on the Hiring and Human Rights manual published by the Employment Security Bureau of the Ministry of Health, Labour and Welfare.

#### Employee Work Rules

The Employee Work Rules clearly stipulate that employees must respect human rights. The rules also strictly prohibit sexual harassment and other inhumane behavior at the workplace. Employees that violate these and other rules are subject to disciplinary action.

#### Equal Employment Opportunity Office

Panasonic is dedicated to maintaining working environments where people from diverse backgrounds in terms of gender, age and nationality can easily work together in a spirit of mutual respect, treating each other as valued partners. We therefore will not tolerate gender discrimination or sexual harassment, and power harassment, and use the following measures to prevent these problems.

- Establishment of sexual harassment policies and programs to explain these policies to employees
- Distribution of sexual harassment leaflets and manuals
- Seminars and training sessions about workplace culture, sexual harassment and power harassment

#### <Operation of an Equal Employment Opportunity Office>

Panasonic established an Equal Employment Opportunity Office and appointed full-time consultants to staff it. In addition, a consultation desk was established at each Company and business division as well, in an effort to provide a place for employees to go and discuss their concerns about equal employment opportunities, sexual harassment, power harassment and a wide range of other topics.

#### Our Stance on Financial Penalties

If financial penalties are allowed under the laws or regulations of a country or region, Panasonic views them as an optional disciplinary measure, in so far as the penalty procedures and amount are within the scope of the laws, do not overly impair the livelihood of the employee, are clearly described in the Corporate Rules and Standards or the Employee Handbook, and are widely known and understood by the employees.



## Management of Work Hours and Wages

### Employee Work Rules

Our rules governing work hours, break times, overtime work, holidays and vacations are based on the Labor Standards Act and union agreements.

### Rules about Employee Compensation

Our rules about wages and salaries, allowances for commuting expenses, etc., bonuses and other forms of one-time compensation, and retirement benefits are based on the Labor Standards Act and union agreements.

### Work Management System

Panasonic diligently follows the laws and regulations of each country with regard to working hours, holidays and break times, and has a work hour management system for administrative purposes. Panasonic also takes a comprehensive approach to managing the health of its employees.

Our overseas affiliates operate their own work management systems. In China for example, employees punch timecards and management double checks the data to make sure the correct number of hours worked is recorded. We use the system to make sure employees do not work excessively long hours, optimally allocate resources, and encourage employees to take better care of their health.

### Paychecks and Wage Surveys

- In Japan, labor unions survey their members once a year about their wages to make sure the results of wage negotiations between labor and management are correctly reflected in the paychecks of their members.
- Outside Japan, Panasonic adheres strictly to all wage-related laws and regulations in each country, including those related to the minimum wage, statutory benefits, and excessive work. The Company directly pays its employees according to a set schedule and notifies them of the payment via pay statements and electronic data.

## Respect for Freedom of Association, Right to Collective Bargaining

### Our Policy and Supplier Requirements

As a corporation, Panasonic respects freedom of association and the right to collective bargaining, which it regards as essential components of fundamental human rights. In countries and regions that recognize the formation of labor unions, such as Japan for example, Panasonic Corporation and the Panasonic Group Workers Unions Association are bound by labor agreements that recognize the unions' right to organize, right to collective bargaining, and right to dispute. In countries and regions that do not recognize the formation of labor unions either by law or in actual practice, Panasonic works to practically resolve issues in dialogue between labor and management, in the spirit of the freedom of association and right to collective bargaining and in accordance with our Code of Conduct. We also clearly state in Standard Purchase Agreement with suppliers that we require them to follow the same principles.

### Panasonic Code of Conduct (Excerpts)

#### Chapter 3: Employee Relations

(Omitted)

##### (2) Respect for Human Rights

5. Taking into account the laws and labor practices of each country, the Company will try to foster a good relationship with its employees and to resolve issues of, among others, workplace and working conditions by constantly having a sincere and constructive dialogue.

- ▶ [Click here for more information on Chapter 3: Employee Relations.](http://panasonic.net/corporate/philosophy/code/17.html)  
<http://panasonic.net/corporate/philosophy/code/17.html>

## Standard Purchase Agreement

(Requirement for suppliers to respect human rights)

The Company works to resolve issues and build sound relationships with its own employees through proactive and sincere dialogue.

## Initiatives in Various Regions and Countries

### Japan

Panasonic has a union shop system where new employees are automatically registered as members of labor unions. The Panasonic Group Workers Unions Association and Panasonic Corporation have signed labor agreements and basic contracts.

As of March 31, 2013, the Panasonic Group Workers Unions Association had a total of 104,230 members.

### <Participation of Employees in Important Management Decisions>

At Panasonic, important management issues are discussed in advance with the labor union, and Management-Labor Committees are established as forums for people to express their opinions on these issues. Important decisions are explained to labor union leaders, and Labor-Management Councils are held to provide an opportunity for people to express their approval or dissent. Both the Management-Labor Committees and Labor-Management Councils are held regularly at the corporate level, Company level, and business division level. The top management level Management-Labor Committee is held once a month and is attended by the President, Executive Officer in charge of personnel, and the head of the labor union's Central Executive Committee. The top-management level Labor-Management Council is held twice a year and is attended by all Executive Officers at the level of Managing Director or above and the members of the labor union's Central Executive Committee.

### Europe

### <Labor-Management Dialogue through the Panasonic European Employee Congress>

Following an EU directive\* adopted in 1994, the Company established the Panasonic European Employee Congress and reached a voluntary labor-management agreement to maintain sound relations between labor and management.

In fiscal 2013, 33 representatives from labor and 15 representatives from management gathered in Rome, Italy, and had lively discussions about management strategy and business issues, exchanging information and opinions.

\* A directive that obliges all companies employing 1,000 or more employees in two or more countries of the European Union to establish a pan-European labor-management consultation committee.

### China

In China, the ratio of labor unions at private-sector companies is widely dispersed, but most Panasonic Group companies there have organized labor groups (associations).

In contrast to Japan, these labor associations are not organized into an all-encompassing group, so each company must work to build amicable relations between labor and management.

This mainly entails periodic discussions between labor and management and recreational activities among labor and management. Important management decisions by the company are implemented after an explanatory briefing with employees, which facilitates business development and better relations between labor and management.

## Human Rights:Performance Evaluation and Development

### Code of Conduct Training

- Fair Operating Practices:Performance Evaluation and Development  
[http://panasonic.net/sustainability/en/fair\\_practices/assessment/](http://panasonic.net/sustainability/en/fair_practices/assessment/)

### Overseas Human Resources and Labor Assessment

Panasonic demonstrates its respect for human rights in various ways in countries in which it does business. This respect for human rights begins with strict compliance with the laws and regulations of each country and a broad and thorough understanding of its Code of Conduct.

One specific example is our overseas human resources and labor assessment system that was launched in 2007 to manage human resources and labor overseas. Composed of approximately 300 items, the checklist 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 Companies and business divisions 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.

Countries and regions covered as a priority: China and Asia

## Human Rights:Performance

### Overseas Human Resources and Labor Assessment

- Overseas human resources and labor assessments have been conducted at 34 sites since fiscal 2008, including 20 companies in China, 10 companies in Asia and 4 companies in other regions.
- Issues that were identified by the assessments were handled primarily by the assessment leader (usually a person in charge of human resources) to work toward a solution, thereby improving the level of labor management.

### [Column] Our Approach to ILO Fundamental Labor Standards

Please click on the following links to read about our responses to the International Labour Organization's (ILO) fundamental labor standards, as they pertain to the eight ILO conventions in four fields below.

#### Field and ILO Convention

##### Respect for Freedom of Association, Right to Collective Bargaining

Freedom of Association and Protection of the Right to Organise Convention (No. 87)

Right to Organise and Collective Bargaining Convention (No. 98)

▶ Rules and System:"Respect for Freedom of Association, Right to Collective Bargaining"  
[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### Prohibition of Forced Labor

Forced Labour Convention (No. 29)

Abolition of Forced Labour Convention (No. 105)

▶ Rules and System:"Prohibition of Child Labor and Forced Labor"  
[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### Effective Abolition of Child Labor

Minimum Age Convention (No. 138)

Worst Forms of Child Labour Convention (No. 182)

▶ Rules and System:"Prohibition of Child Labor and Forced Labor"  
[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### Elimination of Employment and Occupation Discrimination

Equal Remuneration Convention (No. 100)

Discrimination (Employment and Occupation) Convention (No. 111)

▶ Rules and System:"Prohibition of Discrimination and Humane Treatment"  
[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

### [Column] Our Approach to the California Transparency in Supply Chains Act of 2010

In 2010, the State of California passed the California Transparency in Supply Chains Act of 2010. The law came into effect in January 2012 with the aim of improving for consumers the visibility of corporate efforts to eradicate slavery and human trafficking. The law applies to retailers and manufacturers that do business in California and have global sales of over \$100 million annually, obligating these companies to disclose on their websites their efforts to prevent human trafficking.

Panasonic has affirmed that it is adhering to this law and has ascertained the status of its efforts on this front, as a part of the Panasonic Code of Conduct. We have also required our suppliers to do the same in our Standard Purchase Agreements with them. In addition to

conducting an annual review of the details that have been confirmed through assessments undertaken prior to the commencement of transactions, steps are taken to issue remedial instructions or review or cancel transactions depending on the severity of any breach by a supplier.

### **Panasonic Code of Conduct (excerpts)**

#### **Chapter 3: Employee Relations**

(Omitted)

##### **(2) Respect for Human Rights**

2. The Company will not employ people against their will, and will not use child labor. The Company will comply with the employment laws and regulations of the countries and regions in which it conducts business.

▶ [Click here for more information on Chapter 3: Employee Relations.](http://panasonic.net/corporate/philosophy/code/17.html)

<http://panasonic.net/corporate/philosophy/code/17.html>

#### **Standard Purchase Agreement (Requirement that suppliers respect human rights)**

Our Standard Purchase Agreement requires that suppliers will comply with the laws and regulations of countries and regions in which business activities are undertaken, and that suppliers will not engage in forced labor, child labor, illegal employment of foreign workers or other unlawful/inappropriate labor practices. The Agreement also has stipulations about employment conditions, including wages and work hours.

## **[Column] Our Approach to the SA8000 Standard**

The SA8000 standard is a set of international standards for labor and human rights published by Social Accountability International, an NGO in the United States. It details the criteria that employers must satisfy on their own to comply with the standard, including the rights of workers and labor conditions at the workplace, and related management systems. Panasonic has worked actively to address each of the eight criteria required by the SA8000 standard and implemented related management systems. For more information, please click on the links below each of the following elements of the SA8000 standard.

##### **1.Child Labor**

▶ [Rules and System: "Prohibition of Child Labor and Forced Labor"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **2.Forced & Compulsory Labor**

▶ [Rules and System: "Prohibition of Child Labor and Forced Labor"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **3.Health & Safety**

▶ [Employees / Rules and System: "Occupational Safety and Health"](http://panasonic.net/sustainability/en/employee/safety/)

<http://panasonic.net/sustainability/en/employee/safety/>

##### **4.Freedom of Association & Right to Collective Bargaining**

▶ [Rules and System: "Respect for Freedom of Association, Right to Collective Bargaining"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **5.Discrimination**

▶ [Rules and System: "Prohibition of Discrimination and Humane Treatment"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **6.Disciplinary Practices**

▶ [Rules and System: "Prohibition of Discrimination and Humane Treatment"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **7.Working Hours**

▶ [Rules and System: "Management of Work Hours and Wages"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

##### **8.Remuneration**

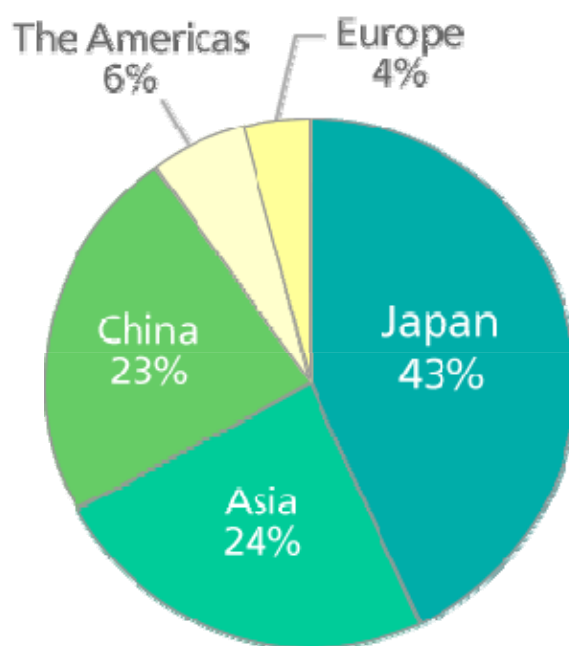
▶ [Rules and System: "Management of Work Hours and Wages"](http://panasonic.net/sustainability/en/human_rights/regulation/)

[http://panasonic.net/sustainability/en/human\\_rights/regulation/](http://panasonic.net/sustainability/en/human_rights/regulation/)

## Employees:Employment Status

Consolidated global workforce: 293,742 (as of March 31, 2013)

### Ratio of Workforce by Region



### Basic Approach of Human Resources

"People are the foundation of business. Develop people before making products." Throughout its history, Panasonic has consistently placed priority on human resource development based on this philosophy.

The core element of our human resources policy is building win-win relationships between the company and employees through a variety of initiatives based on the principles of participative management, evaluations based on performance, and respect for employees. In essence, this approach means that we are simultaneously pursuing two objectives: sustaining growth in business performance and allowing employees to achieve their self-fulfillment through their work.

This is how we go about making Panasonic worker-friendly, more fulfilling work environment.

[ "People are the foundation of business. Develop people before making products" ]





### Panasonic Code of Conduct

#### Chapter 3: Employee Relations

The Company will respect human dignity and strive to provide an environment that encourages employees to realize their full potential. The Company will respect each employee's personality and motivation and, in appropriate circumstances, try to offer matching opportunities in other regions. By building such mutually benefiting relations between the Company and its employees, we will carry out the Basic Business Philosophy.

##### (1) Human Resource Development

1. Remaining faithful to the principle, "The basis of management is people," we are committed to developing human resources with outstanding specialties, creativity and a challenging spirit, as well as to developing our own abilities through personnel systems, employee education and training.
2. We will respect each individual's personality and individuality, while at the same time working to maintain and improve a system that develops the diverse qualities of employees.
3. We will strive to act as a respectable member of society, as well as a good member of the Company, utilizing common sense and respect for others.
4. Managers will fulfill their tasks based on the recognition that personnel development is their most important responsibility.

▸ [Click here for more information on Chapter 3:Employee Relations](http://panasonic.net/corporate/philosophy/code/17.html)  
<http://panasonic.net/corporate/philosophy/code/17.html>

#### Basic Approach of Human Resources Development

As indicated by the phrase "Business lies in people," growth and development of business cannot be realized without the development of people. Human resource development should be carried out through daily management and it is one of the most fundamental responsibilities of managers. Managers should keep in mind that in order to bring innovation to others, the manager must take the initiative to bring innovation to oneself. It is important to carry out human resource development appropriately to enhance the quality of staff members and to stimulate their personal growth.

Therefore Panasonic created its "Human Resources Policy" in 1957, which includes "Basic Purpose of Human Resources Development," "Requirements for All Panasonic Group Employees," and "Basic Guideline for Managers." In order to apply these policies globally, we created "Human Resources Development Policy" which contains the basic philosophy in more understandable phrases and has been made more concise. The Human Resources Policy is informed to all employees in the Panasonic Group to promote the growth of each individual and create a climate conducive to personal growth.

#### Human Resources Development Policy (Excerpt)

##### I. Basic purpose of Human Resources Development

To develop people to have a good understanding of Panasonic's Management Philosophy (BBP) so that they will strive to carry out their responsibilities based on the Philosophy; specifically to develop people to practice 'Requirements for All Panasonic Group Employees' as listed below.

##### II. Requirements for All Panasonic Group Employees

The points below are requirements that all Panasonic Group employees should fulfill. All employees are expected to use this as a guideline and strive for further development.

1. Practice our Management Philosophy

2. Always show challenging spirit
3. Keep thinking and acting innovatively
4. Respect diversity and inclusion
5. Be globally-minded

### III. Basic Guidelines for Managers

Human resource development should be carried out through daily management and it is one of the most fundamental responsibilities of managers.

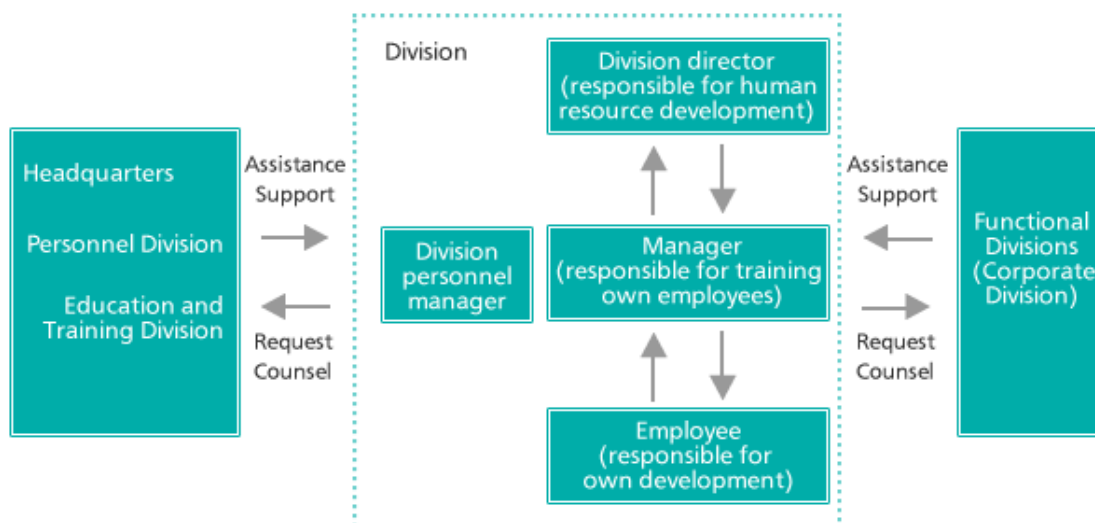
Below are basic guidelines for managers which must be fulfilled so as to "develop people before making products."

1. Show clear leadership based on strong beliefs
2. Create an organization and culture which allows employees to fulfill their potential
3. Encourage others to develop themselves
4. Provide opportunities to take on new challenges and to achieve their goals
5. Create workplaces where diversity is valued and respected
6. Appreciate staff members for their efforts
7. Develop healthy management / employee relations

## Responsible Executive and Framework

Director in charge: Yoshiaki Nakagawa, Managing Director (as of July 2013)

Centers on the division; Human Resources Development Company and Headquarters provides support for occupational skill development





## Basic System for Education and Training

Basic System for Education and Training			
Title	Management training	Functional skill-based training	Training for personal development
(Division) (Director)	<div>Executive training</div> <div>Specialized role-based training</div>	<div>IT training</div> <div>Technology training</div> <div>Manufacturing training</div> <div>Marketing training</div> <div>Training for planning, accounting, personnel, general affairs, design, services, etc</div>	<div>Public seminars, forums and courses</div> <div>Correspondence courses and Languages training</div>
Councilor			
Senior Coordinator			
G5- no job ranking			
New employee	New employee training		

## Panasonic's Human Resources Development Company (HRDC)

HRDC is dedicated to providing employees at every level of the organization with training and education.

Management Training is dedicated to training Panasonic's leadership with the principles required to implement our company's management philosophy. The training also offers Basic Business Philosophy seminars to employees at every level of the organization to learn about innovation practices and ways to implement the Basic Business Philosophy.

The HRDC manages the following three training schemes and carries out specialist training.

- Technology Training

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

- Manufacturing Training

Offers functional training related to manufacturing skills, quality management, environmental management, manufacturing technologies, and procurement

- Marketing Training

Offers training to Company employees and business partners to deepen their understanding of the importance of marketing activities based on management philosophy

Overview of Panasonic's Training System							
	BBP	Management	Technology	Manufacturing	Marketing		
Executives	Foundation Philosophy	Executive development I					
		GM training					
Leaders	Management Philosophy (by rank)	Management Quality	Executive development II				
			Overseas leaders	P-MOT	Next-generation executives	Overseas employees (Adv.)	
			Newly appointed councilors	Technical Intensive-study School for Councilors	Manufacturing assessments	Consumer Marketing Business School	Solution Marketing Business School
Mid-level employees			Career stretch	Engineering leaders	Technologists In-house/national skills tests		
			Newly appointed senior coordinators	Technology Workshop for Senior Engineers	Technical College (overseas)	Factory management	
				Employees	Embedded technology software/hardware/mechanism		Institute of Manufacturing
New engineers					Basics of manufacturing		Basic global marketing seminar

## Performance Evaluation and Development

### Numbers of Training Participants and Training Days

In fiscal 2013, the total number of people who attended the Human Resources Development Company was approx. 73,000 people days. By job category, the approximate number of people days of attendance were as follows:

Global management training: 15,000  
 Corporate technology training: 27,000  
 Manufacturing training: 26,000  
 Marketing development training: 8,000

#### • System for Promoting Individual Initiative

We believe that encouraging each individual to act on initiative, be creative, and develop his or her unique talents is of paramount importance for business growth and development. To develop a stimulating work environment, we believe that it is important for individuals to be thinking about how to raise their own value and create their own careers.

As part of our efforts to realize this, we created e-Challenge (Skill-Based Recruiting) for business divisions in need of new personnel to recruit people with the necessary skills from within the company. We also set up the e-Appeal Challenge (Direct Appeal System) for employees to directly apply to the business divisions in which they would like to work. These programs serve as a career creation scheme to support motivated individuals regardless of age, gender, or nationality.

#### • HRDC Index

HRDC tries to gauge course effectiveness by skill testing before employees attend training courses and after each course unit; to gauge effectiveness in terms of employee satisfaction and business utilization level by questionnaire; and to gauge educational effectiveness by combining skills visualization by in-house and national certification.

For medium- to long-term training, HRDC tries to link promotion and performance indices by feeding back to the workplace information on the number of days lectures were attended, training achievements, and reports.

#### • Satisfaction Surveys

Although our employees are generally satisfied with their roles within Panasonic, our most recent employee survey revealed that, there are underlying concerns about levels of preparedness and abilities to carry out tasks. Providing sound training and development is one of the best ways to ensure that our employees continue to flourish and meet their professional and personal goals at Panasonic.

## • Gauging Operational Effectiveness of Executive Development System in Europe

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At Panasonic Europe Ltd. in Europe, the operational effectiveness of executive development systems is gauged over the previous 12 years and during the course of the year. Specifically, as a result of motivating executive candidates after an unofficial announcement and of their efforts in executive development training courses, these are linked to the effective utilization of and improvements to the system by gauging appointment performance and retention as well as by the ratio of executives on the courses who were appointed via in-company training.

<Cumulative Performance>

Ratio of internal appointments to executive posts 83%

Cumulative promotion ratio of those registered with executive development system 70%

Cumulative withdrawal ratio of those registered with executive development system 7%

## Employees:Promoting Diversity

### Policy

#### Panasonic Code of Conduct

##### Chapter 3: Employee Relations

The Company will respect human dignity and strive to provide an environment that encourages employees to realize their full potential. The Company will respect each employee's personality and motivation and, in appropriate circumstances, try to offer matching opportunities in other regions.

By building such mutually benefiting relations between the Company and its employees, we will carry out the Basic Business Philosophy.

(1)Human Resource Development

(omitted)

2. We will respect each individual's personality and individuality, while at the same time working to maintain and improve a system that develops the diverse qualities of employees.

▸ [Click here for more information on Chapter 3:Employee Relations](http://panasonic.net/corporate/philosophy/code/17.html)  
<http://panasonic.net/corporate/philosophy/code/17.html>

#### Global Diversity Policy

To develop the business as a global corporation, we recognize the importance of human resource development as well as promoting a corporate culture in which every employee can promote the growth of individual without regard for age, gender, or nationality. So Panasonic positioned "Promoting Diversity" as one of the core management initiatives and promote for creating worker-friendly environment as well as providing opportunities to the personnel who has his/her willingness and ability.

##### Global Diversity Policy

Panasonic Group is now one of the world's leading business groups which offer a wide variety of products in electronic business areas related to our daily lives. With an aim to contribute to progress in society and to enrich people's lives through manufacturing, every employee plays a leading role in their job and promoting business activities of Panasonic.

Panasonic is a group of people who have various regional, cultural and historical backgrounds. Although all people are different in nationality, age and gender, they all have their own individuality and abilities. Each person has various different ideas, and by sharing these ideas across countries and business areas, we can create more innovative values. Thus, Panasonic will continue to be a Group which always gathers wisdom and spurs innovation with the concerned efforts of all. We have a strong hope that using our diverse mindsets and viewpoints we can deliver products and services like no other in the world to our customers.

In order to achieve this, it is important to give a chance for success to motivated people of all countries and regions, regardless of their gender, nationality or any other characteristics. From fiscal 2011, we have expanded our diversity activities to make the best of the individuality and abilities of each employee and to support their success towards the group on a global basis. We will continue to take up the challenge of becoming "No.1 in Diversity Promoting Activities in each country and region."

### Responsible Executive and Framework

Director in charge: Yoshiaki Nakagawa, Managing Director (as of July 2013)

General Manager, Corporate Human Resources Group and in charge of Corporate Diversity Promotion Office: Megan Lee (as of July, 2013)



## Corporate Diversity Promotion Office

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In 1999 Panasonic began its Equal Partnership initiative, and since this time, we have been promoting the creation of an open, fair, work environment—one that does not discriminate based on gender, age, or nationality—through the establishment of the Panasonic Positive Action Program, special training programs for women, and the establishment of the Equal Opportunity Employment Officer.

Then in 2001, the initiative to appoint women to positions of responsibility—previously the crusade of the personnel groups—was recognized as an engine of diversity for the entire organization. Subsequently, as one of the management policies to change the corporate climate by facilitating the participation of women in management, the Corporate Equal Partnership Division (currently the Corporate Diversity Promotion Office) was established directly under the office of the President.

Since 2006, we have set up a Corporate Diversity Promotion Office in each business division to accelerate the wide-ranging activities at the workplace level that are centered on them. Members of these Corporate Diversity Promotion Offices act as facilitators at each business division and work to foster a culture that accepts the active promotion of women and recognizes diverse views.

## Rules and System

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### Initiatives to Maintain a Good Work-Life Balance that Supports Diverse Working Styles

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As part of Panasonic's efforts to create an environment that enables diverse personnel to play an active role, we are implementing initiatives to support a good work-life balance for employees.

In addition, Panasonic has created an environment that allows employees easy access to programs that support parents in managing both work and child-rearing. This includes measures complying with Japan's Law for Measures to Support the Development of the Next Generation. Examples include sections on the company intranet that supply information to help men who are raising children, and provide useful information on maintaining the proper balance between job and household responsibilities.

#### <Examples of Work-Life Balance Support Systems>

##### Child Care Leave

A total of two years of leave is available until the end of April immediately after the child begins elementary school.

##### Work and Life Support Duty

A flexible work system for those raising children or caring for the elderly, which includes shortened work hours, half-days, alternate days, and other schedules.

##### Family Support Leave

A vacation system that can be used for a wide range of needs, including caring for a sick or elderly family member, or participating in a child's school events.

##### Child Plan Leave

A system allowing leave for infertility treatment.

##### Care for the elderly leave

Possible to take up to 365 days off for each person that needs nursing care

#### <External recognition and awards>

Ranked No.1 in Nikkei Shimbun's <Best Companies to Work at in 2012>

### Promoting Diverse Work Styles e-Work Program

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Panasonic is promoting the e-Work program, which uses information and communications technology to enable people to work from anywhere, with the full e-Work@Home system being introduced to around 40,000 employees.

Panasonic has also set up "spot offices" - fully equipped and networked places where employees can work when traveling on business - at 17 locations in total (16 in Japan). The spot offices have been shown to reduce travel time and speed up customer service, and we plan to continue our efforts to create a working environment that allows people to work even more efficiently.

Panasonic will increase productivity and continue to improve the work-life balance for its employees by accelerating implementation of more diverse, flexible work styles.

### "Wage by Job" System

We have historically adopted the "wage by job" system. Our reward structure does not discriminate by gender.

### Diversity Promotion Indicators Derived from Opinion Surveys

We establish and assess progress in diversity promotion from the perspectives of two indicators: "diversity of human resources," and "a workplace culture overbrimming with diversity." For the former, we collect data on the number of women holding management positions. For the latter, we utilize the results of Group-wide opinion surveys. We establish priorities such as open communication and mutual learning from others as important items for creating a culture overbrimming with diversity from the Group-wide opinion survey items and work to ensure improvements to any points.

For example, Panasonic holds study meetings at which divisions in charge of different business fields, including B2B and B2C products, gather, and employees are given the opportunity to reconfirm the importance of learning from the initiatives of other divisions and different ways of thinking.

### Global Initiatives

#### Global Unification of the Executive Development System

Panasonic globally standardized the executive development system including the personnel selection criteria for executive candidates and executive development training, although it had previously been promoted separately in Japan and overseas. Irrespective of age, gender, nationality, the best qualified people are being sought and trained, planned careers developed and their appointments to positions fast tracked. Henceforward, a condition governing an executive's appointment is assumed to be experience, such as management experience in multiple businesses and work experience outside his or her home country. To that end, we will fast track career development by such methods as strategic human resource rotation.

In addition, with regard to human resources that are in line for senior management positions and in accordance with individual assessments, we will impress upon each candidate the need to take personal ownership of fast tracking development and growth with a greater sense of motivation and awareness. To this end, steps will be taken to clearly identify individual strengths and weaknesses in leadership and ability, and to uncover educational and training needs to overcome any deficiencies with an eye toward bolstering measures aimed at appointing individuals to a senior management post. At the same time, details will be shared informally with each candidate.

#### Strengthening the Review Process for Getting to Know, Train and Appoint Human Resources

Reaffirming that human resources represent a common Group-wide asset and with regard to successor candidates for important posts, we will set up an objective and transparent system (Talent Management Committee) to openly discuss and review career development and to strengthen the process for getting to know, training and appointing human resources.

#### Implementation of Post Evaluation

Panasonic quantitatively evaluates important global and Group posts using common Group criteria and manages corporate-level incumbents and successor candidates of a certain grade or higher as corporate management posts.

#### Worldwide Introduction of Panasonic Leadership Competences (PLC)

With a view to changing the behavior and strengthening the work practices of each and every leader, we are sharing globally the Panasonic Leadership Competences (PLC) that demonstrates a leadership concept grounded in Panasonic's Management Philosophy.

In the years to come, we will continue to utilize this PLC in all aspects, such as getting to know, training and appointing human resources, as the criteria for appointing senior management.

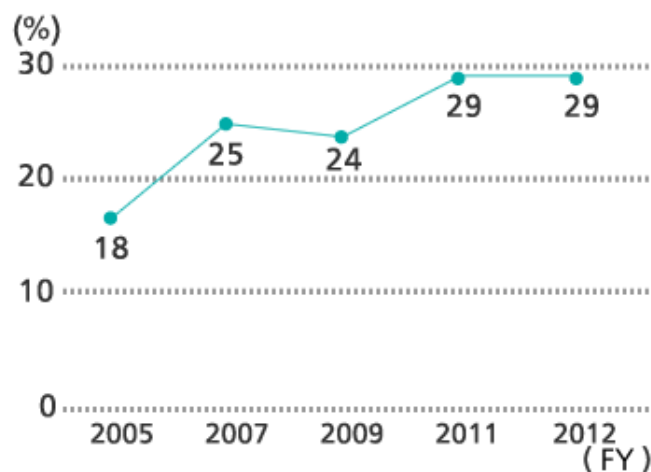
#### Efforts toward Strengthening Leader-Level Education

Panasonic is vigorously promoting working in other countries, with a view to strengthening the education of leaders that represent the core in coordinating the promotion of business that transcends borders. These efforts include implementing programs such as Working in Japan, and maintaining inter-regional personnel changes in regulations.

In addition, we are continuing to promote and enhance employee training programs in all regions. In emerging regions, for example, we are implementing training related to Panasonic's management philosophy and business policy.

In Europe, we are conducting the two-year Talent for Tomorrow (TfT) program. As one part of this program, employees engage in social issues that utilize the skills and experience gained through business activities by participating in CSR-related projects and corporate citizenship activities. In addition, they use this experience in the creation of new businesses that make products.

### <Percentage of Locally Hired Company Presidents of Overseas Companies>



### <Outline of Human Resources Development Policy>

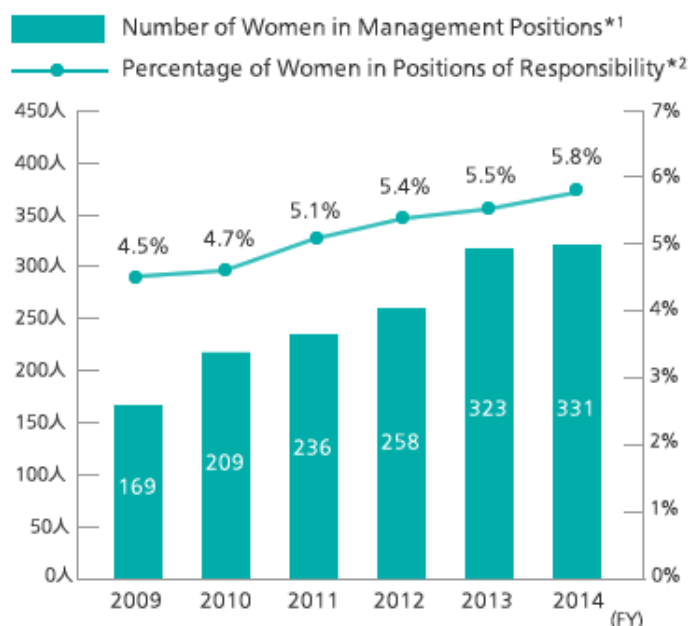
- [Employees / Employee Training and Development:"Human Resources Development Policy"](http://panasonic.net/sustainability/en/employee/development/)  
<http://panasonic.net/sustainability/en/employee/development/>

### Participation of Women in Management

We recognize that improving our gender diversity is necessary to maximize the intellectual capital of society. 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.

In the case of our management team, our first female executive officer took up office in 2011. The first female director was appointed in 2013. To accelerate the participation of women in management, we are holding training programs for female employees and career improvement seminars for women managers as well as working to create opportunities for them to come into contact with role model values and professional views. To improve awareness among all employees of the active role played by female employees and the promotion of diversity, we have designated July as Diversity Promotion Month, hold forums and create opportunities to discuss diversity promotion topics in the workplace.

### <Number of Women in Management Positions, Percentage of Women in Positions of Responsibility>

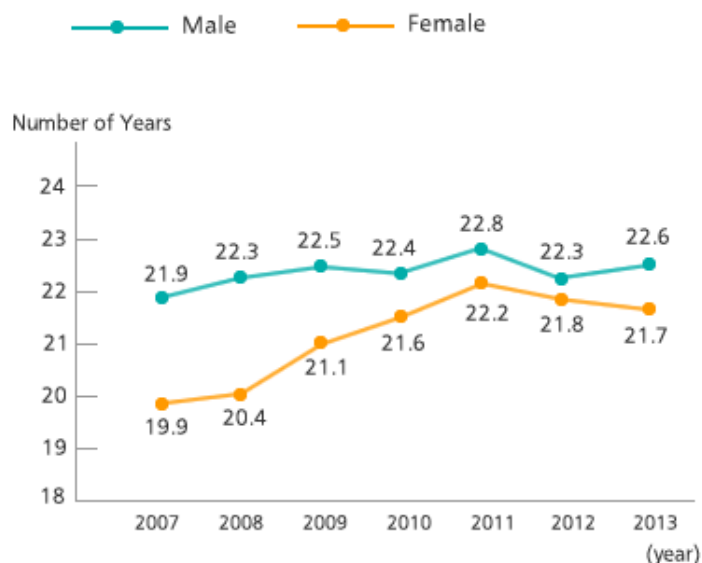


Note: Figures as of April in each fiscal year

\*1: Managerial position is defined as section leader or higher. Total of Panasonic Corporation and its key domestic affiliates (excluding SANYO Electric Co., Ltd., and including the former Panasonic Electric Works Co., Ltd. [PEW] from 2012)

\*2: Positions of responsibility include positions such as coordinator or councilor. Total of Panasonic Corporation and its key domestic affiliates (excluding SANYO Electric Co., Ltd., and including the former PEW from 2012)

### <Average Number of Years of Service>



Notes:

Figures as of March in each year

Total of Panasonic Corporation and its key domestic affiliates (excluding SANYO Electric Co., Ltd., and including the former PEW from 2012)

## Diversity in the United States

We hold training on communicating with different cultures for all employees at Panasonic North America (PNA), our regional headquarters. Related to laws that ban discrimination, the training is based on Equal Employment Opportunity (EEO) policies.

This training deepens knowledge of laws related to the banning of discrimination in employment. Implemented with the aim of preventing harassment in the workplace, the training aims to realize an open and fair workplace environment, as through the training participants learn to build relationships of respect with company colleagues, customers, and business partners.

The EEO policies are thoroughly ingrained in people in management executive and management positions, who are apprised of their responsibility for taking the steps needed to comply with the law.

At Panasonic, diversity is considered essential to our ability to understand consumer needs and aspirations in many of the regions in which we produce and sell our products. For that reason, we conduct wide-ranging activities that aim to move from the "comply with the law, give consideration to diversity" stage to the "emphasize diversity, nurture a culture of acceptance" stage.

To achieve these goals, PNA has undertaken a number of initiatives to remain a "best in class" company in the area of diversity and inclusion. These initiatives include cultural training programs and communications and awareness-raising initiatives. We also offer flextime, telecommuting, and mobile work, all focused on creating a healthy work-life balance for our workforce.

<PNA Demographics (as a percentage of total) as of April 1, 2013>

Male	Female	White	All Minorities	Black	Hispanic	Asian	Native Hawaiian and other Pacific Islanders	Two or More Races	Native American
<b>Officials and Managers</b>									
77.36%	22.64%	69.70%	30.30%	3.97%	6.79%	18.05%	0.25%	0.83%	0.41%
<b>Professionals</b>									
72.31%	27.69%	48.34%	51.67%	5.91%	7.96%	35.75%	0.17%	1.49%	0.39%
<b>Technicians</b>									
91.61%	8.39%	43.53%	56.47%	13.92%	14.51%	25.49%	0.98%	1.57%	0.00%
<b>Sales Workers</b>									
81.85%	18.15%	84.52%	15.48%	2.17%	4.95%	8.05%	0.00%	0.31%	0.00%

\*=Total of PNA HQ and other 15 sites in the U.S.

## Creating Comfortable Workplaces for Those with Disabilities

As of June 2012, the number of employees with disabilities represented 2.04% of Panasonic Corporation's workforce in Japan. On a total Group basis, this figure was 2.06%, higher than the national average of 1.65% and legally mandated quota of 2.0%.

<Ratio of Employees with Disabilities> (Japan)

	June 2007	June 2008	June 2009	June 2010	June 2011	June 2012
<b>Panasonic Corporation</b>	2.04%	1.92%	1.93%	2.01%	2.07%	2.04%
<b>Major group companies</b>	2.29%	2.27%	2.16%	2.10%	2.08%	2.11%
<b>Group total</b>	2.13%	2.05%	2.00%	2.07%	2.08%	2.06%

In addition, in collaboration with communities and local governments, Panasonic operates seven subsidiaries that are owned jointly with public sector partners for the purpose of employing those with severe disabilities. (Number of employees: as of June 2012)

Company	Established	Number of employees (employees with disabilities)	Business
Panasonic Kibi Co., Ltd.	1980	86(35)	Assembly of LCD units for video cameras, assembly of video accessories
Panasonic Katano Co., Ltd.	1981	42 (31)	Assembly of avionics products, inspection and packaging of AV accessories
Panasonic Associates Shiga Co., Ltd.,	1994	53 (31)	Assembly of electronic circuits (for massage chairs, shavers, and other)
Panasonic Ecology Systems Kyoei Co., Ltd.	1980	32 (21)	Assembly of components for ventilating fans, printing of operating manuals

Company	Established	Number of employees (employees with disabilities)	Business
Sanyo Heart Ecology, Co., Ltd.,	1998	68 (52)	Growing and sales of orchids, collection and delivery of in-house mail
Harima SANYO Industry Co., Ltd.,	1982	47 (26)	Assembly of vacuum cleaner parts, environmental maintenance on the premises
Sendai SANYO industry Co., Ltd.	1992	83 (21)	Manufacture of products that use LEDs, manufacture of optical sensors

The facilities at these subsidiaries are designed for those with disabilities, and include placement of parts and materials and adjustments to work surfaces to suit the physical needs of wheelchair users, and we actively welcome participants in trainee programs and employees from other companies to learn from our experience.

At the Eco Solutions Company, they implement training by job position classification for people with hearing impairment, use sign-language interpreters at skill development training programs, provide classes in signing, and have a communications manual for educating people about how best to communicate with people with hearing impairment.

Going forward, Panasonic is committed to promoting the independence of those with disabilities and their active participation in society.

## Our Response to an Ageing Society

Panasonic has been a pioneer in Japanese society with regard to policies and support structure related to the elderly, as exemplified by the extension of the mandatory retirement age in 1972, introduction of its Senior Life Plan in 1980 and launch of its Next Stage Program in 2001. In 2001, Panasonic created the Next Stage Partner System within its Next Stage Program, under which employees who have retired at the mandatory age of 60 are allowed to continue working until the age of 65 if they desire.

Moreover, guided by the basic principle of helping people lead independent lives, Panasonic updated this system with the launch of the New Next Stage Program in April 2008, making it simpler to understand, more flexible and easier for employees to use. In addition to continued employment options at Panasonic, the Company's systems help employees achieve their next life stage in various ways, such as by having a staff registration system at group-affiliated temporary staffing companies for senior citizens seeking to get involved elsewhere and to facilitate their transition to activities outside of Panasonic, and by creating a support system for employees that seek a transfer to a place of their choosing outside the Panasonic Group prior to mandatory retirement.

#### Panasonic Code of Conduct

##### Chapter 3: Employee Relations

(omitted)

(2) Respect for Human Rights

(omitted)

4.The Company will give due consideration to the health of its employees and will maintain a comfortable workplace that meets all applicable safety standards.

▶ [Click here for more information on Chapter 3:Employee Relations](http://panasonic.net/corporate/philosophy/code/17.html)  
<http://panasonic.net/corporate/philosophy/code/17.html>

#### Panasonic Occupational Safety and Health Charter

##### Occupational Safety and Health Declaration

Based on the basic management philosophy of respecting people, Panasonic Corporation is committed to creating safe and healthy workplaces, both physically and mentally, through appropriate and careful attention and consistent effort.

##### Activity Guidelines for Occupational Safety and Health Program

###### 1. Legal and regulatory compliance

Each business unit should establish its own internal policies and procedures to fulfill the relevant legal and regulatory obligations relating to occupational safety and health and ensure compliance.

###### 2. Management resources

Each business unit should devote staff, technology, and capital to creating workplaces that are safe and healthy.

###### 3. Establish, maintain, and improve an occupational safety and health management system

Each business unit should establish an occupational safety and health management program and regularly maintain and improve it.

###### 4. Definitions of roles, authorities, and responsibilities, and organizational maintenance

To administer the occupational safety and health management program and promote continuous autonomous improvement, each business unit should define the roles, authorities, and responsibilities of the elected head, legal staff, managers, and supervisors of the program.

###### 5. Removal and reduction of hazards and potential causes of damage

Each business unit should assess risks, identify hazards and potential causes of damage, and remove or reduce them.

###### 6. Setting goals and formulating and implementing a plan for occupational safety and health management

The management and employees of each business unit should work together to assess the occupational safety and health of workplaces, identify disasters and potential threats to health, establish goals, and formulate and execute a management plan for the occupational safety and health program.

###### 7. Auditing, and review by management

Each business unit should conduct regular audits to monitor the occupational safety and health program. Management should review the audit results and recommend improvements to the program.

###### 8. Education and training

Each business unit should provide its employees and those of its business partners on its premises with education and training in accordance with the occupational safety and health management program, and ensure that all relevant people are kept informed of and familiarized with the program's charter and management system.



## Responsible Executive and Framework

Director in charge: Yoshiaki Nakagawa, Managing Director (as of July 2013)

Organizes the Occupational Health and Safety Committee, which comprises an equal number of members representing unions and the company.

### Division Occupational Health and Safety Management Organization (Japan)



## Rules and System

### Occupational Safety and Health Management System

The purpose of the Panasonic Group's Occupational Safety and Health Management activities is to promote the achievement of a comfortable, safe workplace, which will contribute to the welfare of our employees and the development of our business. In addition, it is also required to give consideration to the safety and health of contractors working on company premises.

In order to maintain and continuously improve our occupational safety and health, all manufacturing locations and major affiliates in Japan have implemented the Occupational Safety and Health Management System, which is in conformity with the international OHSAS 18001 standard. This management system defines the roles of and responsibilities for safe and healthy activities, while promoting them systematically through continuous improvement and regular inspections by respective division directors.

In order to raise safety and health standards globally, we are implementing similar initiatives in places outside of Japan.

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 Japan, the persons in charge of health and safety matters at each site of the Panasonic Group attend a Health and Safety Forum that meets once a year.

By learning from case studies from each business location and hearing lectures by outside speakers, the attendees increase their knowledge, which they then link to activities at each business location. In addition, awards are presented to business locations that consistently achieve accident-free records or conduct safety, hygiene, and health promotion activities that can serve as a model for other business locations.

## Correlation between Panasonic Occupational Safety and Health Management System and OHSAS 18001

The Panasonic Occupational Safety and Health Management System adopts OHSAS 18001-2007 (Occupational Health and Safety Assessment Series 18001) as its applicable standard. We are introducing an in-house accreditation system that verifies the effectiveness of the implementation of the management system by means of Group audits (second-party audits) conducted at levels equal to or higher than those obtainable from external certification.

In the meantime, to meet requests from customer companies, including overseas sites in China and other countries, there are business sites that are obtaining external OHSAS 18001 certification. Those business sites are set out in the table below.

### OHSAS Certification Status at Business Sites in China

NO	Company	OHSAS18001			
		Certification Status	Certification obtained	To be certified	No plan for certification
1	PHAWMH	Certified	Oct-99		
2	PWHAEIG	Certified	Jul-03		
3	PHAAG	Certified	Oct-03		
4	PRDW	Certified	Jul-07		
5	PHAMOS	Certified	Oct-09		
6	PHASH	Certified	Oct-99		
7	PHAH-EP	Certified	Oct-99		
8	PHAH	Certified	Oct-99		
9	PHAH-HHBU	Certified	Oct-99		
10	PHAH-vcBU	Certified	Oct-99		
11	PWCG	Certified	Jan-05		
12	PMSH	Certified	Jan-07		
13	PMRZ	Certified	Jan-06		
14	PMRH	Certified	Feb-07		
15	PHARW	Certified	Aug-08		
16	PEDCBJ	Certified	Sep-00		
17	PEDQD	Certified	Jan-09		
18	PEDJM	Certified	Aug-10		
19	PEDTJ	Certified	Mar-12		
20	PEDJM SD			Dec-13	
21	PECW	Certified	Dec-07		

NO	Company	OHSAS18001			
		Certification Status	Certification obtained	To be certified	No plan for certification
22	PSBS	Certified	Dec-01		
23	PECZ	Certified	Mar-09		
24	PECSH			Dec-13	
25	PSCSH	Certified	Dec-04		
26	PSCPSZ	Certified	Nov-09		
27	PSCSZ	Certified	Jan-06		
28	PASDL	Certified	Mar-07		
29	CHPAVC	Certified	Jul-02		
30	PAVCX	Certified	Aug-03		
31	PPDS	Certified	Dec-10		
32	PAVCSH		Mar-13		
33	PSNZ		Feb-13		
34	PSNS	Certified	Jul-03		
35	PSND		Jan-13		
36	PMX	Certified	Dec-06		
37	PFSS	Certified	Apr-07		
38	PMCB		Nov-12		
39	PESGD	Certified	Feb-07		
40	PESGD-BJ	Certified	Mar-08		
41	PWST	Certified	Mar-08		
42	PLBC	Certified	Dec-06		
43	PHAH	Certified	Oct-99		

The business sites in Japan listed in the table below have obtained OHSAS18001 certification or under plan.

Automotive & Industrial Systems Company Table of OHSAS Certification Status						
Business Group	Business Site	Certifying Organization	Certification Obtained	Date of Renewal	Period of Validity	Note
Electronic Device / Material Business G	Corporate Division	JQA	Oct-12		Oct-15	

Business Group	Business Site	Certifying Organization	Certification Obtained	Date of Renewal	Period of Validity	Note
Electronic Device / Material Business G	Engineering Division	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Production Engineering Division	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Aluminum Capacitor Division Uji	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Aluminum Capacitor Division Yamaguchi	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Film Capacitor Division Matsue	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Film Capacitor Division Toyama	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Custom Components BU	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Custom Components BU (Motomiya)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Printed Circuit Boards BU	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Panasonic Industrial Devices Yamanashi Co., Ltd.	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Circuit Components (Fukui)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Circuit Components (Kadoma)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Circuit Components (Hokkaido)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Circuit Components (Tajima)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Panasonic Industrial Devices Nitto Co., Ltd.	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Electromechanical Components BU	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Automotive Devices Division (Wakasa)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Input Devices Division (Tsuyama)	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Electronic Materials BU (Kadoma)					Scope of application from FY2014
Electronic Device / Material Business G	Panasonic Industrial Devices Materials Koriyama Co., Ltd.	JISHA	Aug-08	Aug-11	Aug-14	Scope of application from FY2014

Business Group	Business Site	Certifying Organization	Certification Obtained	Date of Renewal	Period of Validity	Note
Electronic Device / Material Business G	Panasonic Industrial Devices Materials Yokkaichi Co., Ltd	JISHA	Jan-07	Jan-10	Jan-13	Scope of application from FY2014
Electronic Device / Material Business G	Automation Controls BU					Scope of application from FY2014
Electronic Device / Material Business G	Automation Controls Ise Plant	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Panasonic Industrial Devices Obihiro Co., Ltd.	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Panasonic Industrial Devices SUNX Co., Ltd.					Scope of application from FY2014
Electronic Device / Material Business G	Panasonic Industrial Devices SUNX Tatsuno Co., Ltd.	JQA	Oct-12		Oct-15	
Electronic Device / Material Business G	Panasonic Industrial Devices SUNX Kyushu Co., Ltd.					Scope of application from FY2014
Electronic Device / Material Business G	Panasonic Industrial Devices Taiko Co., Ltd.					Scope of application from FY2014
Semiconductor Business G	Semiconductor Business Group (Nagaoka area)	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Hokuriku Plant (Uozu area)	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Hokuriku Plant (Arai area)	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Hokuriku Plant (Tonami area)	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Okayama Plant	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Shirakawa Plant	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	Yokohama area	JQA	Mar-02	Sep-12	Sep-15	
Semiconductor Business G	PIDDSC Kameoka Plant,	JACO	Oct-03	Sep-12	Sep-15	
Semiconductor Business G	PIDDSC	JQA	Mar-03	Mar-12	Mar-15	
	PPRD	LRQA		May-12	May-15	

Business Group	Business Site	Certifying Organization	Certification Obtained	Date of Renewal	Period of Validity	Note
SANYO Component and Device Division	SANYO Electric Component and Device Division Kadoma	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	SANYO Electric Component and Device Division Uji	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	SANYO Electric Component and Device Division Matsusaka	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	SANYO Electric Component and Device Division Gunma	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	Saga SANYO Industries Co., Ltd.	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	SANYO Electronic Device Sales Co., Ltd.	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	SANYO Optec Design Co., Ltd.	-	-	-	-	Scope of application from FY2014
SANYO Component and Device Division	Sanyo Media Tech Co., Ltd.	-	-	-	-	Scope of application from FY2014

## Approach to SA8000 Requirements

- ▶ [Click here for our approach to SA8000 requirements.](http://panasonic.net/sustainability/en/human_rights/performance/index.html#04)  
[http://panasonic.net/sustainability/en/human\\_rights/performance/index.html#04](http://panasonic.net/sustainability/en/human_rights/performance/index.html#04)

## Mental Health

Panasonic established the following consultants to address the topic of preventing or dealing with mental or physical stress.

- Employee Consultant (or the personnel department associated with the employee's place of work)

The Employee Consultant system was introduced in 1957 to serve as the main channel for helping to resolve the concerns of employees with regards to work and the welfare system, as well as with trouble at home.

- Company Clinic

The Company Clinic is staffed industrial physician and nurse personnel to hear concerns about mental and physical health and help people live healthier lives.

- Panasonic Group EAP Consultant

The EAP (Employee Assistance Program) is a program that provides specialist counselors to hear the concerns of individuals without the company or the health insurance organization finding out about it.

## Preventing HIV/AIDS, protecting the rights of HIV/AIDS victims, assistance for the families

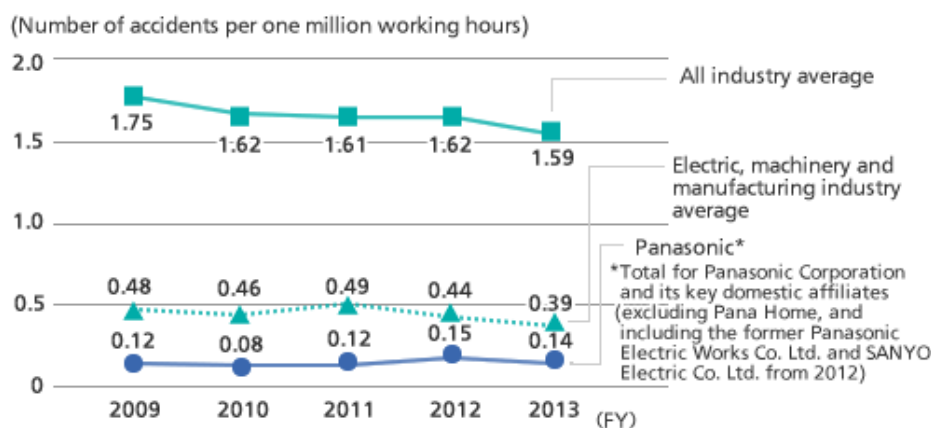
Panasonic believes that, armed with the proper knowledge, HIV/AIDS can be prevented and unnecessary confusion and worry avoided in the work place. Thus, Panasonic has undertaken to educate all its employees about HIV/AIDS as the cornerstone of its initiatives in this area. We are also taking steps to protect the human rights of employees with HIV/AIDS with the following four rules:

1. Confidentiality of personal information
2. Prohibiting discrimination in employment
3. Prohibiting the testing for HIV antibodies without consent
4. Promoting awareness activities

## Performance Evaluation and Development

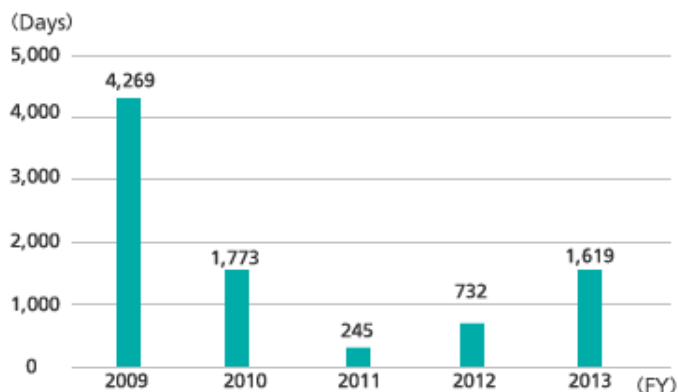
### Number of Work-related Accidents, Time Lost

#### Incident Rate of Work-related Accidents



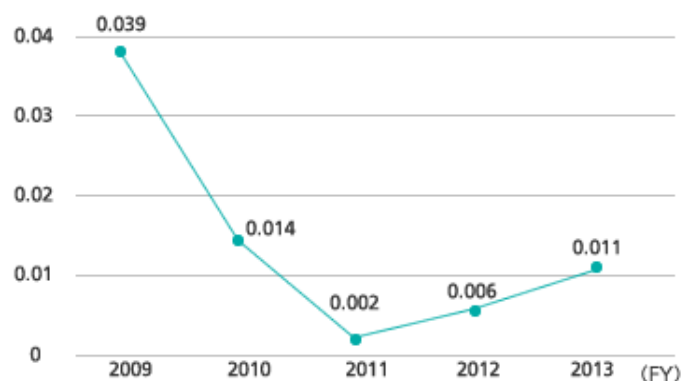
Source: "All industry average" and "Electric, machinery and manufacturing industry average" figures were from the website of the Ministry of Health, Labour and Welfare, Japan.

#### Time Lost Due to Work-related Accidents



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



## Employees:Performance

### Employee Satisfaction

#### Employee Opinion Surveys

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 opinion survey in Japan.

Overseas, platforms for employee opinion surveys are opened every year in June in collaboration with consulting companies that are familiar with global human resource practices to correctly understand and respond to the varied cultures and values of each country. Panasonic is building a system in which those overseas companies that want to can freely participate. The surveys could serve as the benchmark among other companies, and the survey results are connected to problem solving at each company as any issues that are brought to light are incorporated in action plans.

Although there were no significant changes in overall trends, there was also poor performance against the backdrop of business depression, so our survey results for fiscal 2013 showed a decline in satisfaction in such areas as "the dynamism of management," "organizational vibrancy," and "company life" Including for example compensation. In contrast, satisfaction with "rewarding work" was unchanged from previous years, and high motivation was shown toward new product and market development as well as management reform.

Based on these survey results, Panasonic plans to accelerate the implementation of a variety of measures - including improvements to organizational management, with a view to the organization becoming more dynamic, and conveying the thoughts of senior management in a timely manner - so that all employees across the world can have an awareness of any problems as they rewardingly engage in their everyday business tasks.

#### Creating an Environment for Global Communications

Communication is critical to enabling our approx. 290,000 global employees to make full use of their diversity in helping us to realize our goal of developing global network management.

Our innovations in communication aim to create an environment in which employees worldwide can share information, and exchange knowledge and expertise on a daily basis, regardless of regional or national boundaries.

Therefore, all Panasonic employees across the world share management information and the thoughts of senior management by being able to access an intranet network. In addition, to promote the execution of business tasks through global collaboration, we are providing platforms that enable employees and business partners in every part of the world to hold Web conferencing and share information.

# Supply Chain:Policy

## Procurement Policy

Suppliers are our partners in the development of products and services that meet customer expectations. Panasonic's procurement policy reflects its basic approach to procurement, as outlined in the statements below.

1. Working together with Suppliers
2. Implementation Information Gathering and Purchasing during the Development Phase
3. Ensuring Product Quality and Safety
4. Implementation Cost Reduction Programs
5. Achieving Optimum Procurement by Shortening Lead-times
6. Living in Harmony with the Global Environment through Green Procurement
7. Improving Global Procurement
8. Enhancing Compliance
9. Better Utilizing Information and Enforcing Information Security
10. Respecting Human Rights and the Health and Safety of Labor

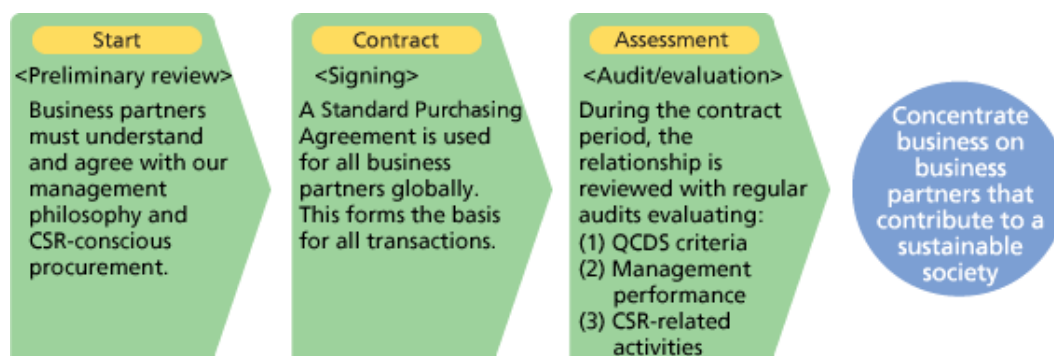
▸ Procurement Activities "Procurement Policy"  
[http://panasonic.net/procurement/procurement\\_policy.html](http://panasonic.net/procurement/procurement_policy.html)

## Basic Stance on CSR

Our suppliers are essential partners who help us to create value by developing products that meet our customers' expectations. Based on relationships of mutual trust, we work closely with our suppliers to continuously improve and deepen cooperation. Amid growing demands for social responsibility in procurement activities, especially with regard to the environment and human rights, Panasonic is collaborating with its suppliers to improve CSR procurement and transparency.

Not only does Panasonic provide outstanding technologies and quality, it also promotes transactions with suppliers that are socially responsible. Our suppliers agree to follow the Panasonic management philosophy and guidelines for CSR procurement, and are required to sign the Standard Purchase Agreement that clearly stipulates considerations concerning human rights and the environment before business commences. Panasonic also periodically evaluates its suppliers based on their CSR activities, in addition to their quality, cost, delivery and service (QCDS) standards and management performance.

Panasonic has five core areas of focus in its approach to CSR procurement; Clean Procurement; Green Procurement; Compliance; Information Security, and; Human Rights, Labor, and Occupational Health & Safety.



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



### For Suppliers

While conducting business activities through partnerships with its suppliers, Panasonic is expected to ensure that corporate social responsibility (CSR) is being followed throughout its supply chain. We ask our suppliers to strictly adhere to the following CSR issues.

1. Agreement with Panasonic's Clean Procurement Policy
2. Product Quality and Safety
3. Environmentally Consciousness Management (Green Procurement)
4. Compliance and Fair Trade
5. Information Security
6. Safeguarding of Human Rights and the Health and Safety of Labor

▶ Procurement Activities "For Suppliers"  
[http://panasonic.net/procurement/for\\_suppliers.html](http://panasonic.net/procurement/for_suppliers.html)

## Supply Chain:Responsible Executive and Framework

### Promoting CSR Procurement

Each Company and business division incorporates the PDCA process to implement CSR procurement through planning and promoting it in line with the corporate policies, rules and standards, and manuals with regard to procurement operations, as well as with the characteristics of their business. Every issue raised in the operations is discussed and resolved in the conferences organized by the Company purchasing managers.

At the same time, we have made available training tools on our intranet for our procurement-related employees to acquire the skills needed to promote CSR procurement. Transferred employees and new hires are required to take CSR training courses.

## Supply Chain: Rules and System

### Clean Procurement

We ask our suppliers to indicate their approval of our Clean Procurement Declaration, which shows Panasonic's commitment to fair and appropriate procurement activities, and engage in fair and appropriate transactions.

1. Fair Transaction on an Equal Basis
2. Selection of our Suppliers
3. Practicing Appropriate Procurement Activities

▸ [Procurement Activities "Clean Procurement Declaration"](http://panasonic.net/procurement/declaration.html)  
<http://panasonic.net/procurement/declaration.html>

### Green Procurement

▸ [Environment: Collaboration Across the Supply Chain](http://panasonic.net/sustainability/en/eco/supply_chain/)  
[http://panasonic.net/sustainability/en/eco/supply\\_chain/](http://panasonic.net/sustainability/en/eco/supply_chain/)

### 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 assess ourselves to verify that we conduct fair and honest transactions with our suppliers based on our internal transaction rules. We also provide our employees responsible for procurement with regular training on compliance.

In the Standard Purchase Agreement, suppliers are required to consent to the following items.

#### Standard Purchase Agreement

- Abide by all applicable laws and regulations
- Offer no bribes or illegal political contributions, nor offer or receive cash or its equivalent, gifts or entertainment in excess of social conventions
- Eradicate any and all associations with anti-social forces, and others

### Information Security

Panasonic has issued its Information Security Standards and an information security checklist. We ask our suppliers to maintain the same level of information security as Panasonic does, in order to correctly handle and manage information assets including customer data, personal data, and information about technology, quality, products and services.

### Fundamental Human Rights at Work, Labor, and Occupational Health and Safety

We demand that our suppliers adhere to the following in our Standard Purchase Agreement with them.

#### Standard Purchase Agreement

- Completely respect the human rights of their employees
- Provide employees with a safe and comfortable workplace environment
- Strive to provide equal employment opportunities without discrimination
- Do not engage in forced labor, child labor, illegal employment of foreign labor, or any other illegal employment activities

- Follow the laws and regulations of countries and regions in which business activity takes place regarding employment conditions, including wages and work hours
- Require that their subcontractors and suppliers follow the same rules
- In the event a violation is discovered, it must be immediately reported and remedial action must be swiftly taken, and others

#### **Related Links**

- [Respect for Freedom of Association and Right to Collective Bargaining](#)
- [Our Approach to the California Transparency in Supply Chains Act](#)

## Supply Chain: Addressing the Issues of Conflict Minerals

### Basic Stance toward Conflict Minerals

Panasonic recognizes that for countries in conflict areas<sup>\*1</sup>, the issue of conflict minerals<sup>\*2</sup> as a source of funding for organizations that are involved in human rights abuses, environmental destruction, bribery, and other unlawful activities is a grave concern. In order to fulfill its social responsibility in its procurement practices, Panasonic therefore has adopted a policy of non-use of conflict-affected minerals as raw materials. In the unlikely event that Panasonic discovers that it is inadvertently using conflict-affected minerals, the Company will immediately take steps toward their non-use.

To put this system in place, Panasonic sent a communication to all members of the Panasonic Group in December 2010, ordering them to make sure that they are not using conflict-affected minerals. In February 2011, Panasonic began encouraging its main suppliers to identify their mineral sources.

However, in conflict areas there are still companies and individuals who are engaged in legitimate business. The Company must make every effort to ensure that its decision not to use illegal minerals does not harm the business activities of these legitimate operators. This is why it is important for Panasonic to maintain contact with the various stakeholders in the legitimate mineral supply chain in conflict-affected areas, including government, corporation, and NPOs. For this reason, Panasonic participated in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals in Conflict-Affected and High-Risk Areas project that the Organization for Economic Co-operation and Development (OECD) began in August 2011. By participating in this project, following OECD guidelines, and adopting a management process that is in accordance with global standards, Panasonic is contributing to international efforts that seek to overcome the conflict minerals problem.

<sup>\*1</sup> Democratic Republic of the Congo, and neighboring nations

<sup>\*2</sup> Tin, tantalum, tungsten, gold

### Participation in Pilot Project for OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

The Organisation for Economic Co-operation and Development (OECD) has issued guidelines for responsible mineral procurement. In August 2011, Panasonic began to participate in a pilot project for implementing this guidance. In addition to corporations, the pilot project involves governments that are members of the OECD and located near regions of conflict in Africa, NGOs, and research institutions. The project aims to foster debate and attempts to create a conflict-free supply chain for minerals. Drawing on its own experiences in conducting proprietary pilot survey and its awareness toward issues from a suppliers perspective, Panasonic actively put forward recommendations

▶ [Press release: Panasonic to Implement OECD Due Diligence Guidance to Ensure Conflict-Free Procurement](#)

### Conflict Mineral Survey

Panasonic is a member of the Responsible Minerals Trade Working Group of the Japan Electronics and Information Technology Industries Association (JEITA), which aims to educate and enhance the effectiveness of supply chain tracing and validation through industry collaboration. The Responsible Minerals Trade Working Group collaborates with other industries, holds seminars on how to properly address the problem of conflict minerals, does presentations to recommend common tools and techniques for supply chain mapping and validation, and holds joint conferences on the supply chain survey.

📄 [JEITA Responsible Minerals Trade Working Group](#)

### Participation in the US-led Public-Private Alliance for Responsible Minerals Trade (PPA)

Panasonic has joined a select group of industry, government, and civil society leaders as a member of the Public-Private Alliance for Responsible Minerals Trade (PPA). The PPA was formed with the goal of promoting minerals procurement solutions that do not contribute to the ongoing conflict in the Democratic Republic of the Congo and neighboring central African Great Lakes region countries where the minerals are mined.

The central Great Lakes region of Africa is home to many producers of tin, tantalum, and other minerals, some of which are feared to be a source of financing to rogue militant groups involved in human rights violations and environmental destruction.



Panasonic will participate in the PPA to support the ongoing initiatives that foster responsible minerals trade, and thus, contribute to the healthy economic development of this region.

The PPA is supporting the establishment of validated, traceable mineral supply chains, and providing a platform for alliance stakeholders to discuss and collaborate on initiatives to achieve sustainable, responsible minerals trade in the region. PPA members jointly fund projects to bring targeted solutions to mineral supply chain gaps in the region. Among the PPA' s initial projects were development support of a traceable conflict free mineral chain for artisanal gold from Orientale province in the DRC, and support for the implementation of an early warning system of the mining sector in the South Kivu province of the DRC.

As part of our corporate citizenship activities in this region, we established the Panasonic NPO Support Fund for Africa in 2010 to strengthen the advertising foundations for NPO/NGOs working to resolve problems in African nations. This support goes to groups like Terra Renaissance, which is working to prevent use of land mines, small arms, and child soldiers in Uganda, the Democratic Republic of the Congo and other areas.

**Related information**

[Public-Private Alliance for Responsible Minerals Trade](#)  
[Panasonic NPO Support Fund for Africa](#)  
\*Japanese only

## Local Community:Basic Stance toward Corporate Citizenship Activities

### Philosophy and Policies of Corporate Citizenship Activities

Panasonic is promoting corporate citizenship activities (social contribution activities) and working to solve social issues around the world, based on the philosophy of education and coexistence while focusing on two key areas: the environment / energy and the next generation.

We carry out our corporate citizenship activities not as a distribution of profits but as an investment in society while collaborating and cooperating proactively with multiple stakeholders to help build a firm basis for civil society. Furthermore, we combine the efforts of all our employees and, to deploy our corporate citizenship activities globally, implement initiatives positioned as key strategies under three themes- "finding solutions to social problems in emerging regions and developing countries," "the global extension of environmental education," and "improving employees' innovation mindset as a global citizen" -based on the global policies set out below.

<b>Positioning</b>	Social investment should be an integral element in business strategy, and top management must take the lead in making these investments.
<b>Activities</b>	The highest priorities are the next generation and the environment/energy.
<b>Vision</b>	The Head Office will establish global strategies and oversee activities that are carried out across several regions. Regional companies will spearhead regional strategies and activities.

### Responsible Executive and Framework in the Promotion of Corporate Citizenship Activities

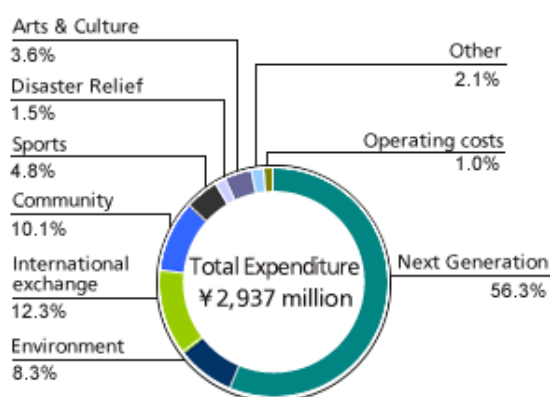
From Japan, Panasonic formulates and conveys global strategies, for which Senior Managing Executive Officer Takumi Kajisha bears ultimate responsibility, and directs activities across regions. In five overseas regions - North America; Latin America; Europe/CIS; Asia, the Middle East and Africa; as well as China and Northeast Asia - regional strategies and activities are directed predominantly by a responsible official based in-region.

### Status of Corporate Citizenship Activities

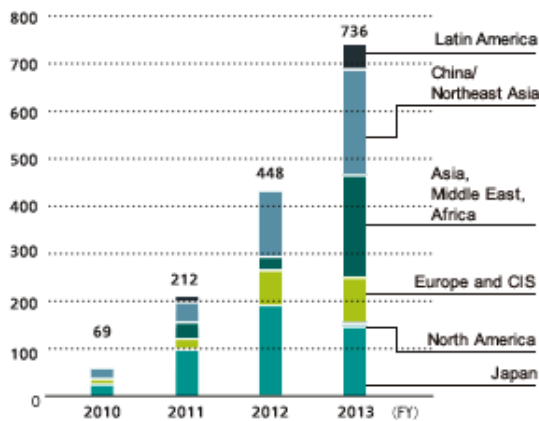
In fiscal 2013, we contributed a total of approximately 65 percent of our social investment to our overseas corporate citizenship activities.

▸ For more details of Panasonic's Corporate Citizenship Activities : <http://panasonic.net/citizenship/>

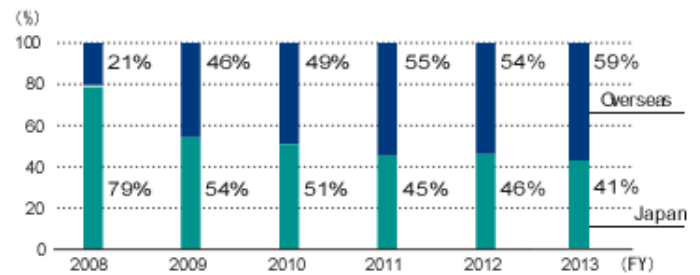
Corporate Citizenship Expenditure by Category and Region



Number of Global Environmental Education Initiatives Implemented



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



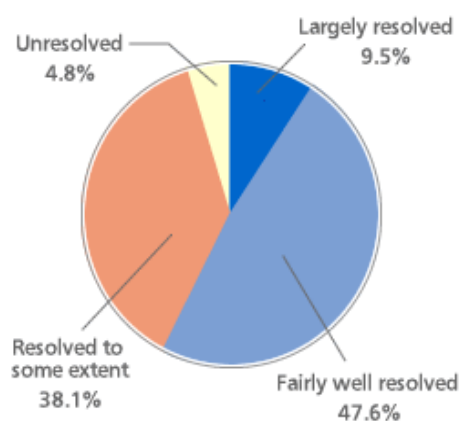
Panasonic goes to great lengths to gauge the efficacy of its expenditure on corporate citizenship. For example, the Panasonic NPO Support Fund investments in NPOs and NGOs active in the fields of the environment and in supporting the development of the next generation represent a program that strengthens the organizational foundations of NPOs. Panasonic launched the fund in 2001 in recognition of the fact that major stakeholder NPOs/NGOs needed to strengthen their organizational foundations in order to develop their citizenship activities in a sustainable manner toward the solution of social issues.

In fiscal 2013, the Panasonic NPO Support Fund comprised grants of 29.9 million yen provided to a total of 22 organizations, nine in the environment field and 13 that work with children.

A follow-up survey of grant recipients is conducted at the point two years have elapsed after a grant-subsidized project has ended. A third party conducts a qualitative and quantitative assessment of the program's efficacy in strengthening organizational foundations. In the surveys conducted in 2012 of organizations that had worked to strengthen their organizational foundations in 2010, more than half (57.1%) answered "largely resolved" or "fairly well resolved" when asked if the grant had resolved the major organizational management problems. In addition, each organization was requested to conduct self assessment if the efforts to strengthen the organizational foundation had enhanced and improved the outcome and impact of the main project (had brought about change or had an effect on society) from the four viewpoints of 'expansion of the scope of beneficiaries and the number of people,' and 'effect on resolving,' 'change in society' and 'effect on policies' with respect to certain social issues being tackled, 95% of the organizations responded that they observed enhancement and improvement at least in one of those viewpoints. Besides having grown the organizations through the grants, the efforts to strengthen the organizations' foundations were linked to enhancements and improvements in the outcome and impact of their main projects, and thus the fund's effectiveness in strengthening organizational foundations was verified.

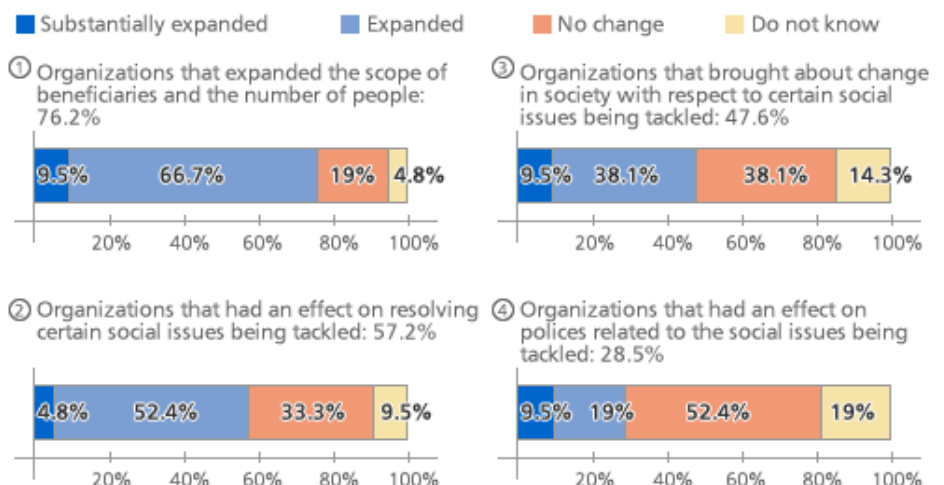
## Organizational Foundations were Strengthened for Growth

[Question] Were you able to resolve the major organizational management problems at the time of grant application by carrying out the business?



## Outcomes and Impacts were Improved and Enhanced

[Question] Were you able to improve and enhance outcomes and impacts of main projects by carrying out measures aimed at strengthening the organizational foundation?



## Local Community: Addressing 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, food, medical, and health problems. We at Panasonic have the mission of contributing to the growth of local communities through our business and proactively leverage Panasonic's technologies, solutions, and expertise to resolve these problems. In doing so, we are strengthening collaboration and cooperation with a number of stakeholders, including NPOs/NGOs and international organizations.

### Improving People's Lives in Off-grid Areas

Currently, there are about 1.32 billion people worldwide living without electricity, mainly in developing countries in Asia and Africa. Many homes in these regions use kerosene lamps for lighting, but they pose the risk of fire and the smoke released is harmful to human health. Since they do not provide sufficient light, the activities of people are significantly restricted while also posing a danger at night. In resolving the wide-ranging issues arising from the lack of electricity and working to improve people's lives, Panasonic leverages its energy technologies while promoting cooperation with NPOs/NGOs and international organizations.

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

### 100 Thousand Solar Lantern Project

Solar lanterns are compact lighting fixtures that store in a battery the electricity generated by the light of the sun during the day and use this power for lighting at night. Not harmful to health and with no risk of fire, solar lanterns do not emit CO<sub>2</sub> when in use. Previously, Panasonic had donated 1,000 solar lanterns to Tanzania (April 2011), where it has been engaged in the manufacture and sale of dry cell batteries since 1968, and 2,000 to Cambodia (March 2012), where Panasonic maintains a representative office. In both cases the lanterns had been donated via a number of international organizations and NPOs/NGOs. The experiences gained in these two countries convinced Panasonic that solar lanterns offer a solution to the social problems-medical, educational, and economic-that beset regions without electricity, and thus the 100 Thousand Solar Lantern Project was launched in fiscal 2013. The aim of the project is to contribute to solving social problems by donating a total of 100,000 solar LED lanterns to people in the off-grid regions of the world by 2018, the 100th anniversary of Panasonic's founding.

Under this project, 3,000 compact solar lights were donated to NPOs/NGOs in Myanmar in February 2013, 5,000 to NGOs and social enterprises in India in March, and 2,000 to a refugee camp in Kenya in May.

#### 100 THOUSAND SOLAR LANTERN PROJECT

<http://panasonic.net/citizenship/lantern/>

#### Cambodia



In March 2012, Panasonic donated 2,000 solar LED lanterns to 15 NPOs and NGOs operating in Cambodia.

These NPOs and NGOs are active in the education, health, medical, and related fields. The donated lanterns are being used in a variety of locations including medical clinics, schools, children's orphanages, and small business workshops in areas without the benefit of electricity. By increasing safety when women are giving birth at night, enhancing the quality of education, and increasing productivity of the industries in the region, this initiative is helping to resolve a number of the country's social problems.

Solar lanterns enable safe medical examinations on expectant and nursing mothers and the delivery of babies to be carried out during the night at health care centers in villages with no electricity. (Photo by WorldVision Japan)

### Life Innovation Container

A stand-alone power supply system developed by Panasonic to supply electricity to off-grid areas all over the world, the Life Innovation Container (LIC) contributes to enhancing people's lives and the creation of a sustainable society.

The full range of Panasonic's energy creation and storage technologies are packed into a 20-foot cargo container.

#### Tanzania (October 2011)

Through the NPO Millenium Promise, an LIC was donated to the Mbola Millenium Village Project, a village in Tanzania lacking in any electric power. Electricity generated by the LIC is used to show children audio-visual education materials and in ICT educational activities. Thanks to the LIC, villagers can also recharge their mobile phones. In December 2012, a visit was



General view of an LIC undergoing maintenance checks (Tanzania)

made to the village to conduct a regular annual inspection of the LIC as well as a survey on the status of use. The LIC is installed in close proximity to an elementary school and provides the electricity required to power the personal computer classroom. The LIC is also used by villagers to charge their mobile phones.

India

In April 2012, Panasonic worked with the Everonn India Foundation, a charitable trust working to spread quality education across India, to set up an LIC in a semirural vocational training school for women operated by the government of Tamil Nadu. The donated LIC provides electricity for equipment to receive training programs via satellite communication.

Panasonic NPO Support Fund for Africa

To help fulfill its corporate responsibilities as a global enterprise by supporting African countries, Panasonic launched the Panasonic NPO Support Fund for Africa to assist NPOs and NGOs working in Africa in the strengthening of their organizational foundations for public relations. The fund also forms part of the company's efforts to attain the United Nations Millennium Development Goals (MDGs), a commitment on the part of the international community. With a view to building a sustainable society, this program supports the capacity building of Japan-based NPOs and NGOs that are carrying out a wide range of activities in Africa in their public relations efforts. Through ongoing public relations efforts, NPOs and NGOs can increase public awareness toward their own specific activities and help people acquire a better understanding of the actual conditions in Africa. This should serve to increase the number of supporters, strengthen the organizations' financial resources, and thus help strengthen their organizational foundations. In 2012, the Panasonic NPO Support Fund for Africa granted subsidies totaling 4.0 million yen to five organizations.

▶ [Panasonic NPO Support Fund for Africa](http://panasonic.co.jp/citizenship/pnsf/africa/npo_mina.html)  
[http://panasonic.co.jp/citizenship/pnsf/africa/npo\\_mina.html](http://panasonic.co.jp/citizenship/pnsf/africa/npo_mina.html)  
 \*Japanese only

Table For Two (TFT)

Panasonic has been participating in a social action program promoted by Table For Two International (TFT), an NPO, since August 2009. This project originated in Japan with a view to eliminating the imbalance in food conditions, in which the developing world is facing hunger and malnutrition while the developed world is suffering from obesity and other lifestyle diseases. In specific terms, through fund-raising activities, and when healthy dishes are served at 16 cafeterias spread across 11 internal sites, 20 yen per meal, equivalent to the cost of one school meal in Africa, is donated to TFT. Through this and other fund-raising activities Panasonic has donated around 7.1 million yen to TFT.

## Local Community: Panasonic Kids School for Developing the Next Generation

To realize a sustainable society, Panasonic puts a great deal of effort into supporting the development of the next generation. Panasonic Kids School offers a varied program, intended primarily for elementary and junior high school students, that supports the dreams and future of children throughout the world. In fiscal 2013, tuition was given to around 740,000 children in 51 countries. Based on the Eco Learning Program teaching materials developed by the head office in 2010, and incorporating such activities as Eco Picture Diary, environmental education was given on content adapted for each region. Panasonic is planning to have two million children around the world provided with environmental education by 2018.

### Eco Learning Program

Panasonic is promoting the Eco Learning Program on a global basis. The Program is essentially a set of global environmental education materials that stimulate concrete action in response to a wide range of environmental issues encompassing energy, resources, and the natural environment. The program is effectively made up of a base component that serves to promote understanding in basic environmental issues, a development program that provides information on corporate environmental technologies, and a two-tiered course that participants can choose from depending on the level. At the same time, the programs can be combined and modified to allow for easy introduction.

#### ▶ Eco Learning Program

<http://pks.panasonic.co.jp/global/ecolearning/activities/index.html>

#### Hawaii, USA (May 2012)

Introduced in May 2012, environmental education teaches children about creating and storing energy and uses as teaching aids the solar panels commonly installed in the area.



A Panasonic presents a lecture about energy at a school in Honolulu.

#### Peru (June 2012)

In June 2012, Panasonic contributed to the local community by instituting tours first in the country to its dry cell battery plant and lectures on the environment that make use of the Eco Learning Program.



Children learn about global warming

#### India (March 2013)

In March 2013, Panasonic provided donated solar lights and environmental education teaching materials in an off-grid region and then started to give lectures on the environment at a school in a rural area.



Environmental education under way at an Eco Night School where solar lights are in operation

#### Japan (since 2008)

Panasonic provides elementary schools with Eco-Monogatari (Eco story) program, one of its environmental learning programs, that is designed to support the social studies curriculum for the school children in the fifth grade.



Panasonic employees engaging in R&D, production, sales, recycling, etc, visit schools to give classes.

### The World Heritage Eco Learning Program

Panasonic and the UNESCO World Heritage Centre announced a strategic partnership agreement to promote sustainable development through World Heritage conservation and environmental education for the next generation. As a part of this strategic partnership, the Company engages in environmental education activities targeting children from all over the world. Under the World Heritage Eco Learning program, children are invited to World Heritage sites to gain an insight into the importance of World Heritage conservation and the global environment through classroom lectures, tours, and workshops. In addition, the Company holds the "Eco Picture Diary Contest," a contest where children introduce their own unique global environmental conservation activities in the form of a picture diary. Topics generally cover issues and items close to home and are linked to efforts aimed at saving and protecting the global environment. Each year, more than 300,000 entries are received. Guided by the strategic partnership with the UNESCO World Heritage Centre, these activities are undertaken and developed on a worldwide



basis. Over the two-year period from 2011 to 2012, approximately 4,000 children have participated in the program visiting 11 World Heritage sites in 10 countries. Plans are in place to hold the program at World Heritage sites in eight countries during 2013.

▶ The World Heritage Special  
<http://panasonic.net/promotion/worldheritage/>



Children experiencing the immense power of nature at the Iguazu Falls in Brazil



Participating in the eco learning program as well as cleanup activities at the Ujung Kulon National Park in Indonesia



An oasis created within the desert using the wisdom of ancient times at the cultural sites of Al Ain, the only World Heritage site in the UAE



Thinking about the importance of World Heritage sites and the environment at the Imperil Citadel of Thang Long in Hanoi City, Vietnam

RiSuPia, Tokyo / Vietnam

Panasonic operates a museum facility that allows visitors to participate in hands-on activities. The facility is based on the themes of science and mathematics. Hands-on exhibits, which appeal to all the five senses of children, stimulate interest and curiosity and convey to the younger generation the joys of science as well as the beauty and wonders of mathematics. RiSuPia was first opened in the Panasonic Center Tokyo in August 2006. Panasonic Risupua Vietnam was later opened in Hanoi City in September 2010 with the aim of inspiring dreams and passion in the young children who are charged with Vietnam's future.

[Visitors to RiSuPia]

	FY2013	Cumulative Total
Panasonic Center Tokyo Risupia	376,000	1,910,000
Panasonic Risupia Vietnam	44,000	110,000

▶ RiSuPia  
<http://risupia.panasonic.co.jp/en/index.html>

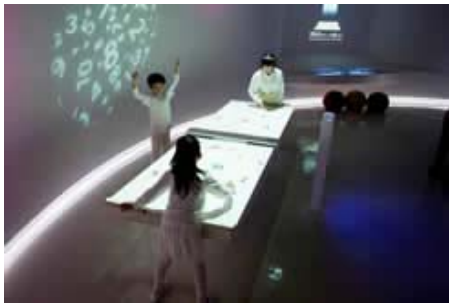
<RiSuPia Panasonic Center Tokyo>



Entrance



Light canvas



Prime numbers hockey

<Panasonic Risupia Vietnam>



Entrance



Discovery base camp



Magical Performance Theater



## The "Smiling for Sure 2021" Great East Japan Earthquake Support program

Panasonic operates the "Smiling for Sure 2021" video-making assistance program for children still suffering under evacuation lifestyles after the Great East Japan Earthquake. Since its launch in September 2011, an aggregate total of around 1,500 elementary and junior high school students from Iwate, Miyagi, and Fukushima prefectures have participated in the program. "Smiling for Sure 2021" was created using the know-how gained through the "Kid Witness News-," a video-making assistance program that Panasonic has promoted over many years. The aim of the program is to bring back a smile to the faces of disaster-stricken children through a video-making project that allows children to make two videos with the titles "What I Want to Say" and "Message for Us in 2021." At each school that conducts the program, a screening of one of the two videos, "What I Want to Say," is held for the children who created them as well as teachers, parents, and people from the local community. The "Messages for Us in 2021" were saved onto an SD card and placed in a time capsule, which was then presented to each participating school. The idea was generated in the hope that children would come back and watch the videos 10 years from now.

### ■ "Smiling for Sure 2021"

<http://panasonic.co.jp/citizenship/kwnjp/program2021/>

\*Japanese only

\* Kid Witness News (KWN) is a global education support program initiated by the Company. The program is designed to enhance creativity and communication skills as well as promote teamwork among elementary and junior high school students through the making of videos.



Making the "Smile for Sure 2021" video

## Local Community:Global Citizenship Activities Promoted by Employees

For Panasonic to create innovation in its businesses across the world, it is becoming increasingly important to improve the mindset of its employees toward innovation as global citizens. To create a sustainable global environment and society, Panasonic is not only promoting its corporate activities as an enterprise but is also enhancing the support of volunteer activities carried out by its employees, their families on a global scale.

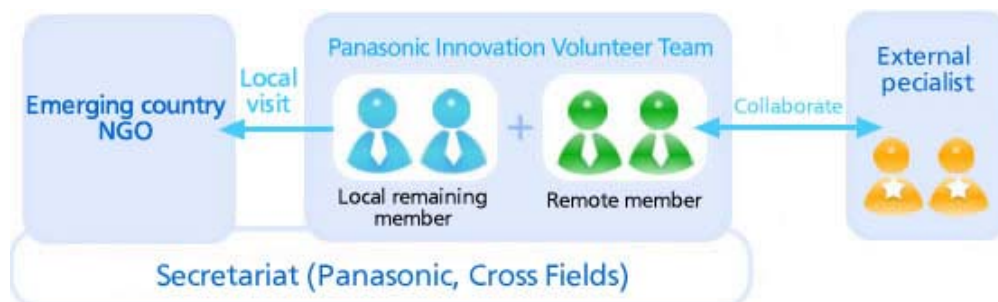
### Panasonic Innovation Volunteer Team (PIVoT)

The Panasonic Innovation Volunteer Team (PIVoT) is one of our in-house pro bono groups. Leveraging Panasonic technologies and the skills gained by our employees, the team works together on solutions to the wide-ranging challenges faced by NGOs operating in emerging and developing countries.

Specifically, teams are made up of four to five Panasonic employees of varying experiences and expertise. One or two members from each team visit an NGO in an emerging country for a month beforehand as a local remaining member and, while liaising with remote team members in Japan and specialists from within and outside the company, work to solve local problems. Working at NPOs and social enterprises in emerging countries in Asia and Africa, employee skills are matched with the needs of the organizations centered on the three areas (environment/energy, education, healthcare) from which they can draw on their business experience at Panasonic.

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.

\*Pro bono refers to the provision of work-related expertise, skill's, and time for the benefit of society as a whole.



▶ [Panasonic Innovation Volunteer Team \(PIVoT\)](http://panasonic.co.jp/citizenship/pivot/index.html)  
<http://panasonic.co.jp/citizenship/pivot/index.html>

\* Japanese only

### Indonesia



The two Panasonic employees inspect the power generation system.

In March 2013, two Panasonic employees traveled to Indonesia to support the operations of an NGO that is engaged in finding solutions to problems in the country's off-grid regions by the installation of small-scale hydroelectric power generators. They proposed plans for the effective use of the surplus power generated by the installed hydroelectric power generating equipment. The employees at the frontline were supported from Japan by three remote team members.

### BOP Solution-Finding Workshop

The more than 70% of the world's population that currently live on an income of less than eight dollars a day, and who are facing a variety of poverty-related social problems, are known by the term BOP (Base Of the Pyramid). Developing its products and businesses in key emerging regions, Panasonic cannot ignore the issues surrounding BOP, who account for the majority. At the BOP Solution-Finding Workshop, targeted at employees who thought they would like contribute to help finding a solution, participants gained a deeper understanding of the problems in emerging and developed countries and consideration was given to the problems and needs on the frontline and to approaches through Panasonic's businesses.

The fiscal 2013 workshop was attended by 33 employees from a wide range of work backgrounds within Panasonic as a whole, including sales,

engineering, development, accounting, design, and legal. On the subject of India they gave proposals for business divisions related to "creating a business idea to solve social problems in India's rural areas."

## Panasonic NPO Support Pro Bono Program

Panasonic launched the Panasonic NPO Support Pro Bono Program in Japan in April 2011. This program is a social contribution initiative where employees use their work skills and experiences to offer support to NPOs. As at May 2013, 86 employees were registered on the program. In fiscal 2013, 29 employees offered their support to five NPOs and engaged in such activities as formulating business plans, website redesign, and the creation of marketing materials. The NPOs that received support included organizations operating in the areas affected by the 2011 Great East Japan Earthquake. This program aims to make use of the skills and experiences acquired by Panasonic Group employees for the benefit of society at large, to support the strengthening of NPOs' business development capabilities that are engaged in finding solutions to social problems, and to bring greater achievements to NPOs. By having employees gain awareness from participating on the frontline in efforts to find solutions to local social problems, the program also seeks to improve their capabilities as global citizens, so that they reach the stage where as citizens they are able to reflect on solutions to social problems of a global scale.

A forum was held in Osaka in November 2012 to widely share the significance and achievements of the pro bono system. As the forum was attended by pro bono workers who had participated in the program and NPOs that had received support in 2012, the talk was of the experiences that only people involved in the Pro Bono Program can gain, the possibilities that pro bono presents, and of broadening the program to western Japan. The forum was attended by around 110 interested members of society, students, and people involved with NPOs.

▶ [Panasonic NPO Support Pro Bono Program](http://panasonic.co.jp/citizenship/pnsf/probono/index.html)

<http://panasonic.co.jp/citizenship/pnsf/probono/index.html>

\*Japanese only

## Panasonic ECO RELAY for Sustainable Earth

Panasonic encourages employees and their families as well as retired employees all over the world to participate in volunteer activities. Under the name Panasonic ECO RELAY for Sustainable Earth, the Company promotes efforts that bring together people, communities and activities on a global scale. In fiscal 2013, approximately 1,100,000 trees were planted on a global basis. This brings the aggregate total to around 4,061,000 trees since 2007. Looking ahead, ongoing efforts will be made to protect the natural environment in partnership with local communities. For details of specific activities, please refer to "Environment:Contribution to Local Communities and Education for the Next Generation."

## Local Community:Disaster Relief

Through financial resources, matching programs, employee donations, employee volunteers and other resources, Panasonic makes great efforts to aid recovery efforts in communities devastated by natural and other disasters. Details of our recent support are as follows:

### April 2013 / Support for Earthquake Victims in Ya'an City in Sichuan Province, China

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**[Donation]** 1 million yuan (approximately 16 million yen) from the Panasonic Group  
Donated to: Red Cross Society of China

### December 2011 / Support for Earthquake Victims in Turkey

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**[Donation]** 10 million yen from the Panasonic Group  
Donated to: Turkish Red Crescent

### November 2011 / Support for Flood Victims in Thailand

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**[Donation]** 30 million yen from the Panasonic Group  
Donated to: 15 million yen to Japan Platform and 15 million yen to Japanese Red Cross Society

### Support for the Victims of the Great East Japan Earthquake

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The Panasonic Group made monetary donations of some 3.7 million yen to support the areas affected by the massive earthquake that hit the northeast coast of Japan on March 11, 2011 and the resultant tsunami. Panasonic Group employees around the world also participated in a group-wide fund-raising effort and donated about 3.2 billion yen.

In addition to these monetary donations, Panasonic made in-kind donations in an effort to aid victims and support organizations and groups involved in the recovery of the disaster-stricken areas. These included 580,000 dry batteries, 50,000 flashlights, 10,000 pocket-sized radios, 4,000 solar lanterns, and a Life Innovation Container, plus TVs, microwave ovens, and the rental of 754 Toughbook mobile computers to NPOs. (As of December 2011)

Furthermore, more than 200 employees participated in relief activities in the afflicted areas on a voluntary basis and took part in school support activities such as helping 15 schools host their athletic meets.

### Support for Earthquake Victims in New Zealand

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The Panasonic Group donated a total of five million yen to assist victims and support the recovery of areas affected by the earthquake that struck Christchurch in February 2011.

### Panasonic Donates for Flood Victims in Pakistan

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Panasonic Corporation announced today the company will donate three million yen to aid victims and support the recovery of areas affected by the massive floods that struck the northwestern part of Pakistan from late July to early August.

Panasonic and its employees express deep condolences for victims of the floods and sincerely hope for swift recovery of the people and areas in Pakistan affected by the disaster.(August 6, 2010)

### Panasonic Donates for Landslide Victims in China

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Panasonic Corporation announced today the company will donate RMB one million (approximately 13 million yen) to aid victims and support the recovery of areas affected by the landslides that struck Gansu Province in the northwestern part of China on 7 and 8 August.

Panasonic and its employees express deep condolences for victims of the landslides and sincerely hope for swift recovery of the people and areas in China affected by the disaster.(August 17, 2010)

## China

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Panasonic announced the company will donate a total of RMB 1 million (approximately 14 million yen) to aid victims and support the recovery of areas affected by the strong earthquake that struck Qinghai province in western China on April 14th.

Panasonic and its employees express deep condolences for victims of the earthquake and sincerely hope for swift recovery of the people and areas in Qinghai province affected by the disaster.

## Haiti

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Panasonic has made a total charitable donation of 10 million yen, five million yen each to the Japanese Red Cross Society and to Japan Platform, to help with the recovery efforts being made in the wake of the major earthquake that struck the Republic of Haiti on January 12 (local time).

The Panasonic Latin America Group has also provided three million yen worth of additional support in the form of equipment such as dry batteries and flashlights.

Meanwhile, Panasonic Corporation of North America has collected a total of US\$60,000 worth of donation including 10 Tough book laptops from employees and company to be given to the American red cross. (The donation amount as of Feb 17,2010)

Also Panasonic Europe Ltd. has collected a total of Euro 20,000 worth of donations from employees and 110,000dry battery and 2,400 flashlight from company to be given to Red Cross/UNICEF of each country. Our company wishes to express its deepest regret and sympathies to those affected by this terrible disaster, and to offer our sincerest hopes that the Republic of Haiti will recover from the tragedy as quickly as possible.

## Panasonic Provides Aids to Disaster-Hit Indonesia, Philippines and Samoa

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Japan - Panasonic Corporation announced its donations to aid victims and support the recovery of the areas in Southeast Asia and the Pacific that were affected by the recent spate of natural disasters.

Panasonic will donate, including monetary and in-kind donations, a total of 10 million yen for victims of the Sumatra earthquake, five million yen for typhoon victims in the Philippines and two million yen for earthquake victims of Samoa.

Panasonic and its employees offer their condolences to the victims and their families and sincerely hope for swift recovery of the people and areas affected by the disasters.(Oct 6, 2009)

## Costa Rica

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The 2009 Costa Rica earthquake took tens of lives and destroyed many homes. Panasonic Centroamericana sympathized with the victims of this tragedy by collecting groceries for families and donating \$2,250. This amount was doubled by the Banco de Costa Rica.

## Local Community:Foundations

Around the globe, Panasonic has established many foundations and scholarship programs to promote education, the development of global leaders, the advancement of science and technology as well as coexistence with the natural environment.

### THE JAPAN PRIZE FOUNDATION



Inaugurated in 1983 with the support of Panasonic's founder- Konosuke Matsushita, the Foundation aims to promote the development and dissemination of science and technology by awarding the prestigious Japan Prize, holding seminars open to the general public on latest scientific and technological developments and providing research grants to young scientists.

Referred to as Japan's Nobel Prize, the Japan Prize is presented annually to scientists and researchers who have made significant contributions to the advancement of science and technology as well as to the promotion of peace and the prosperity of mankind.

### Ryozen Institution (Japan)



Established in October 1968, on the centennial anniversary of the Meiji Restoration, by Panasonic founder Konosuke Matsushita, the institution aims to preserve and maintain historical monuments and sites located in the Ryozen hill of graves, where participants in the Meiji Restoration movement are enshrined, as well as to pass on the spirit of the pioneers who built the foundation for a modern Japan to subsequent generations, especially young people.

To fulfill its mission, the institution established and currently manages the Ryozen Museum of History dedicated to the Meiji Restoration and the end of the Tokugawa shogunate and is promoting activities to help many visitors learn from the leading spirit of forerunners.

## Content Index : ISO26000

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).

Core Subjects	Issues	Location at Sustainability Report 2013 (PDF)	Relevant Panasonic Engagement
Organizational Governance	1. Organizational governance	P6	▸ Our Unchanging Management Philosophy and Sustainability
	2. Principles and considerations	P12	▸ Corporate Governance
	3. Decision-making processes and structures	P22	▸ Risk Management
Human Rights	1. Due diligence		▸ Respecting Fundamental Human Rights
	2. Human rights risk situations	P156	▸ Fundamental Human Rights of Employees
	3. Avoidance of complicity	P157	▸ Overseas Human Resources and Labor Assessment
	4. Resolving grievances	P163	▸ Prohibition of Child Labor and Forced Labor
	5. Discrimination and vulnerable groups	P160	▸ Prohibition of Discrimination and Humane Treatment
	6. Civil and political rights	P160	▸ Management of Work Hours and Wages
	7. Economic, social and cultural rights	P161	▸ Respect for Freedom of Association, Right to Collective Bargaining
	8. Fundamental principles and rights at work	P161	
Labour Practices	1. Employment and employment relationships		
	2. Conditions of work and social protection	P168	▸ Employee Training and Development
	3. Social dialogue	P174	▸ Promoting Diversity
	4. Health and safety at work	P181	▸ Health and Safety
	5. Human development and training in the workplace		
The Environment		P30-32	▸ Policy
		P126-128	▸ Environmental Risk Management
	1. Prevention of pollution	P81-88	▸ Chemical Substance Management
	2. Sustainable resource use	P64-77	▸ Resources Recycling
	3. Climate change mitigation and adaptation	P78-80	▸ Water Resource Conservation
		P39-63	▸ CO <sub>2</sub> Reduction
	4. Protection of the environment, biodiversity and restoration of natural habitats	P89-91	▸ Biodiversity Conservation
		P99	▸ Contribution to Local Communities and Education for the Next Generation
		P33-38	▸ Eco-conscious Products and Factories
		P100-121	▸ Global Eco Projects



Core Subjects	Issues	Location at Sustainability Report 2013 (PDF)	Relevant Panasonic Engagement
		P92-93 P94-97	<ul style="list-style-type: none"> <li>▸ <a href="#">Collaboration Across the Supply Chain</a></li> <li>▸ <a href="#">Environmental Communication</a></li> </ul>
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	P151 P151 P153 P190 P193	<ul style="list-style-type: none"> <li>▸ <a href="#">Prevention of Corruption</a></li> <li>▸ <a href="#">Fair Trade</a></li> <li>▸ <a href="#">Fair Operating Practices:Performance Evaluation and Development</a></li> <li>▸ <a href="#">Supply Chain:Policy</a></li> <li>▸ <a href="#">Supply Chain:Rules and System</a></li> </ul>
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	P134 P139 P145 P147 P41 P44 P50	<ul style="list-style-type: none"> <li>▸ <a href="#">Product Quality and Safety</a></li> <li>▸ <a href="#">Customer Satisfaction</a></li> <li>▸ <a href="#">Information Security and Protection of Personal Information</a></li> <li>▸ <a href="#">Ethical Corporate Communications in Advertising</a></li> <li>▸ <a href="#">Global Expansion of ECONAVI Products</a></li> <li>▸ <a href="#">Energy-saving /creating/storing Products</a></li> <li>▸ <a href="#">Energy Solutions</a></li> </ul>
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	P197	<ul style="list-style-type: none"> <li>▸ <a href="#">Local Community</a></li> </ul>

## Content Index : GRI

STANDARD DISCLOSURES PART I: Profile Disclosures			Location and Notes at Sustainability Report 2013(PDF)
Strategy and Analysis	1.1	Message from our president	P7
	1.2	Key impacts, risks, and opportunities	P8,9-11,22-29
Organizational Profile	2.1-2.9	Organizational profile, reporting scale, and changes to organization	P4 See also our Annual Report 2013.
	2.10	Awards received	P216
Report Parameters	3.1-3.3, 3.5	Reporting period, cycle, past reports, and process for defining report content	P1
	3.4	Contact point	Back cover
	3.6-3.8	Boundary of the report	P1
	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 relevant Pages 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	P209-215
	3.13	External assurance policy and practice	P1
	4.1-4.7, 4.9-4.10	Corporate governance structure, policies, and arrangements	P12-21
	4.8	Statements of mission or values, codes of conduct, and principles	P6-7,149
Governance, Commitments, and Engagement	4.11	Precautionary approach or principle	P22-29
	4.12	Endorsement of externally developed charters and principles	P149,156
	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	P9-11,94 We currently do not provide a full list of our engagements.
	4.15-4.17	Approach to stakeholder engagement	P9-11,94 We currently do not provide a full list of our engagements.

STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMA)		Location and Notes at Sustainability Report 2013 (PDF)
Economic	Economic performance and market presence	P4 See also our Annual Report 2013.
	Indirect economic impacts	P197-208
Environment	Materials	P30-36,64-74,81-85,90-93
	Energy	P30-63,92-93,100-121
	Water	P30-38,78-80,92-93
	Biodiversity	P30-38,89-91
	Emissions, effluents and waste	P30-38,64-65,75-80,85-88,100-121
	Products and services	P30-36,39-51,57,64-74,78,81-85,91,100-121
	Compliance	P30-32,36-38,126-128
	Transport	P30-32,58-61,92-93
	Overall	P30-38,94-98,122-125,129-133
Labor	Employment	P166
	Labor/management relations	P161-162
	Occupational health and safety	P181-188
	Training and education	P168-173
	Diversity and equal opportunity	P174-180
Human Rights	Investment and procurement practices	P190-191,193-196
	Non-discrimination	P160
	Freedom of association and collective bargaining	P161-162
	Child labor and forced and compulsory labor	P160
	Security practices	P156-158,160
	Indigenous rights	We currently do not have an explicit management approach on indigenous rights.
	Assessment and remediation	P163-165
Society	Local communities	P197-208
	Corruption	P151
	Public policy	P195-196

STANDARD DISCLOSURES PART II: Disclosures on Management Approach (DMA)		Location and Notes at Sustainability Report 2013 (PDF)
Product Responsibility	Anti-competitive behavior	P151
	Compliance	P149-155
	Customer health and safety	P134-138
	Product and service labeling and marketing communications	P139-144,147-148
	Customer privacy	P145-146
	Compliance	P134-138

STANDARD DISCLOSURES PART III: Performance Indicators			Location and Notes at Sustainability Report 2013(PDF)
Environment	EN1	Materials used by weight or volume	P64-65,81-88,92-93,129
	EN2	Percentage of materials used that are recycled input materials	P64-65,92-93,129
	EN3-EN4	Direct and indirect energy consumption by primary source	P52-56,58-61,92-93,129
	EN5*	Energy saved due to conservation and efficiency improvements	P39-40,52-56,58-61,92-93,100-121
	EN6*	Initiatives for energy-efficient or renewable energy based products	P33-36,39-51,57,100-121
	EN7*	Initiatives for indirect energy consumption reductions	P39-56,58-63,92-93,100-121
	EN8	Water withdrawal by source	P78-80,129
	EN10*	Water recycled and reused	P78-80
	EN11	Location and size of land in areas of high biodiversity value	P89-91 We currently do not disclose the size of land.
	EN12	Significant impacts on biodiversity	P89-91
	EN14*	Strategies, current actions, and future plans for managing impacts on biodiversity	P30-32,89-93
	EN16-EN17	Direct and indirect greenhouse gas emissions by weight	P52-56,59-62,92-93,129
	EN18*	Initiatives for greenhouse gas emissions reductions	P39-63,92-93,100-121
	EN19	Emissions of ozone-depleting substances by weight	P87-88
	EN20	NOx, SOx, and other significant air emissions by type and weight	P87-88
	EN21	Water discharge by quality and destination	P78-80 We currently do not disclose water discharge by quality and destination.

STANDARD DISCLOSURES PART III: Performance Indicators			Location and Notes at Sustainability Report 2013(PDF)
Labor Practices and Decent Work	EN22	Waste by type and disposal method	P76-77
	EN23	Significant spills	P126
	EN26*	Initiatives to mitigate environmental impacts of products	P33-36,39-51,64-74,78,81-85,91,100-121
	EN27*	Percentage of products sold and their packaging materials reclaimed	P64-74 We currently do not disclose the percentage of the packaging materials reclaimed.
	EN28	Significant fines and non-monetary sanctions for non-compliance	P126 We currently do not disclose significant fines.
	EN29*	Environmental impacts of transporting products	P59-62
	EN30*	Environmental protection expenditures and investments by type	P130
	LA1	Workforce by employment type, employment contract, and region	P166
	LA2	Employee turnover by age group, gender, and region	P166
	LA4-5	Collective bargaining agreements and minimum notice period(s)	P161-162
	LA7-8	Injury, occupational diseases, lost days, absenteeism, work-related fatalities, and programs for serious diseases	P181-188
	LA10	Employee training	P168-173
	LA13	Composition of governance bodies and breakdown of employees	P176-179
	LA14	Basic salary of men to women	P176
	LA15	Return to work and retention rates after parental leave	
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	P156 We currently do not provide data for the percentage and number of agreements, screenings, and trainings on human rights
	HR5-7	Freedom of association, collective bargaining, child labor, and forced and compulsory labor	P161-162
	HR10-11	Human rights assessment and remediation	P163
Society	SO1, 9-10	Practices that assess impacts of operations on communities, operations with significant negative impacts, and prevention and mitigation measures	P197-208
	SO2-4	Business units analyzed for risks related to corruption, anti-corruption policies and procedures, and actions taken in response to incidents of corruption	P155

STANDARD DISCLOSURES PART III: Performance Indicators			Location and Notes at Sustainability Report 2013(PDF)
Product Responsibility	SO5	Public policy engagement	P195-196 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	P155
	PR1	Assessment of health and safety impacts of products	P134-138
	PR3	Type of product and service information required by procedures	P137-138
	PR5*	Practices related to customer satisfaction	P139-144
	PR6	Marketing communications	P147-148
	PR9	Significant fines and non-monetary sanctions for non-compliance	P137-138
Economic	EC1	Direct economic value generated and distributed	P4 See also our Annual Report
	EC2	Financial implications and other risks due to climate change	P39-40
	EC3	Coverage of the organization's defined benefit plan obligations	See Annual Securities Report
	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	P190-196
	EC7	Local hiring and proportion of management from the local community	P176-177
	EC8	Infrastructure investments provided primarily for public benefit	P197-208
	EC9*	Indirect economic impacts	P197-208

\*Additional indicators

## Recognition from Outside the Company

### Major Recognition in the CSR and Environmental Fields

#### Dow Jones Sustainability Indexes

For the eighth 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.

► [DJSI website](#)

<http://www.sustainability-indices.com/>



#### FTSE4Good Index Series

Panasonic Corporation was selected again for the FTSE4Good Index Series, one of the world's leading socially responsible investment (SRI) index series. The series was begun by the London-based FTSE Group in 2001, and Panasonic has been included every year since the series was launched.

► [FTSE website](#)

<http://ftse.com/>



#### RobecoSAM Sustainability Rating

Panasonic was awarded the Bronze Class distinction in the CSR category by RobecoSAM (Sustainable Asset Management), one of the most highly recognized asset management companies for sustainability investments.

► [RobecoSAM website](#)

<http://www.robecosam.com/en/sustainability-insights/library/the-sustainability-yearbook.jsp>



#### Best Global Green Brands 2013 by Interbrand

The result of the Best Global Green Brands 2013 Ranking was announced on June 12, 2013 by Interbrand, a U.S. brand consultant company. Panasonic has moved up 2 places from the last year, 6th to 4th, and ranked top among electronics companies for the first time.

#### CDP2012 Global 500

The Carbon Disclosure Project (CDP) announced its tenth survey results on the world's largest companies in regard to greenhouse gas emissions and strategies for climate change on September 2012. Panasonic has been highly scored for its disclosure and environmental performance, being listed in both leadership indexes.

#### Nikkei Environmental Management Survey

Panasonic was ranked 6th in the manufacturer category of the 16th Nikkei Environmental Management Survey announced on January 27, 2013. Specifically, our initiatives for Recycling-oriented Manufacturing, which make the best use of resources, were highly valued and ranked top in the resources recycling part.

#### Environmental Brand Survey by Nikkei BP Eco Management Forum

Panasonic ranked 3rd in the ranking of the 13th Environmental Brand Survey conducted in 2012 by Nikkei BP Eco Management Forum, with a higher ranking than the previous year. We received high evaluations in a wide range of areas such as global warming prevention, resource saving, and reduction in hazardous substance use.





## Independent Assurance Report

To the Board of Directors of Panasonic Corporation

### Purpose and Scope

We were engaged by Panasonic Corporation (the “Company”) to provide limited assurance on its Sustainability Report 2013 posted in the Company’s website ([http://panasonic.net/sustainability/en/downloads/back\\_number/pdf/2013/sr2013e.pdf](http://panasonic.net/sustainability/en/downloads/back_number/pdf/2013/sr2013e.pdf)) (the “Report”) for the fiscal year ended March 31, 2013. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether the environmental indicators listed in the table below included in the Report, for the period from April 1, 2012 to March 31, 2013 (the “Indicators”) are prepared, in all material respects, in accordance with the Company’s reporting criteria.

The content of the Report is the responsibility of the Company’s management. Our responsibility is to carry out limited assurance engagement and to express our conclusion based on the work performed.

Table: The Indicators subject to independent assurance and corresponding page number in the Report

Indicators	Page	Indicators	Page
CO <sub>2</sub> emissions from the use of major products	44	CO <sub>2</sub> emissions from non-manufacturing sites	56
CO <sub>2</sub> emissions in production activities	52	CO <sub>2</sub> emissions from domestic transportation within Japan	58
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities	55	Total wastes	76
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities (Scope 1 emissions)	56	Amount of water consumption	79
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities (Scope 2 emissions)	56	Release/Transfer of substances requiring management	88

### Criteria

The Company applies its own reporting criteria as described in the Company’s website

([http://panasonic.net/sustainability/en/downloads/back\\_number/pdf/2013/review2013e.pdf](http://panasonic.net/sustainability/en/downloads/back_number/pdf/2013/review2013e.pdf)). We used these criteria to evaluate the Indicators.

### Procedures Performed

We conducted our engagement in accordance with ‘International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by the International Auditing and Assurance Standards Board, and the ‘Practical Guidelines for the assurance of Sustainability Information’ of J-SUS. The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company’s responsible personnel to obtain an understanding of its policy for the preparation of the Report.
- Reviews of the Company’s reporting criteria.
- Inquiries about the design of the systems and methods used to collect and process the Indicators.
- Analytical reviews of the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company’s reporting criteria, and also a recalculation of the Indicators.
- Visits to factories and administrative offices of the Company and its affiliates selected on the basis of a risk analysis.
- Evaluating the overall statement in which the Indicators are expressed.

### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company’s reporting criteria as described in the Report.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.  
Osaka, Japan  
July 23<sup>rd</sup>, 2013

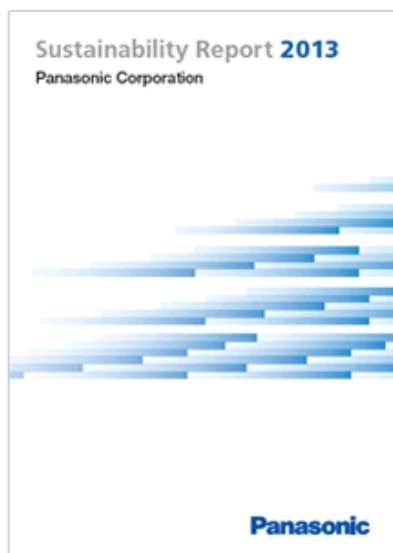
## Reports on Business Activities of Panasonic

Publications related with business activities of Panasonic comprise two reports: this Sustainability Report, which details information on our CSR and environmental initiatives; and the Annual Report, which contains business strategies and financial data for shareholders and investors.

### Sustainability Report [PDF]

Available on our sustainability website.

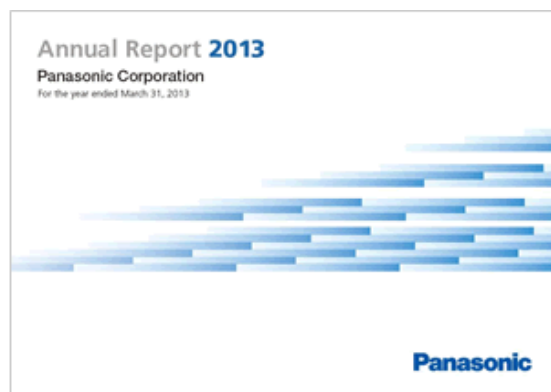
▶ <http://panasonic.net/en/sustainability/>



### Annual Report [PDF]

Available on our IR website.

▶ <http://panasonic.net/ir/>





Inquiries

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