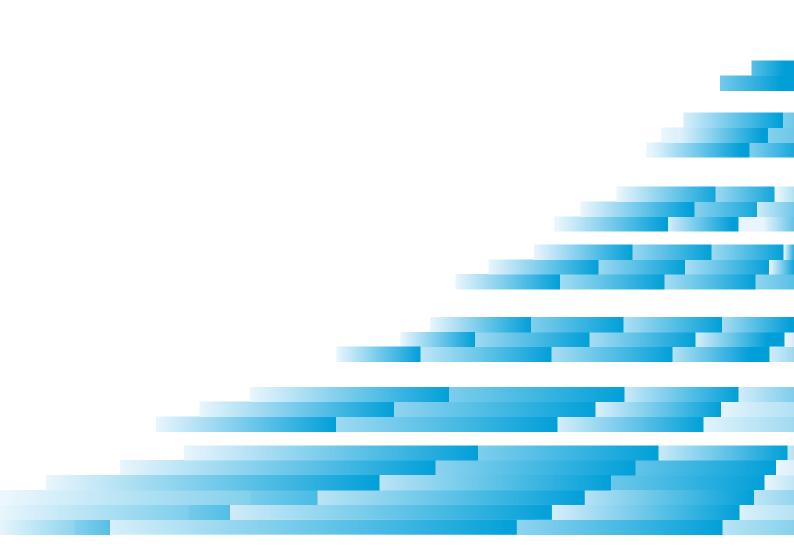
# **Sustainability Report 2014**

## **Panasonic Corporation**





## **About Sustainability Report 2014**

### **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.

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 G4 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 (see pages 9-12), 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://www.panasonic.com/global/corporate/sustainability/

This report is published alongside our Annual Report 2014, which contains detailed information about our business and financial performance.

▶http://panasonic.net/ir/

### Scope of the Report

Reporting period: Fiscal 2014 (April 1, 2013 - March 31, 2014)

Organizations covered: Panasonic Corporation and consolidated subsidiaries

- •Data related to manufacturing sites covers all manufacturing sites (296 sites) that have established Environmental Management Systems.
- •Effective from the present fiscal year (fiscal 2014), the Company has revised its policy regarding the retroactive revision of data in the event of changes in the scope of tabulation. From fiscal 2014, data will not be revised in a retroactive manner. Fiscal 2014 data: Data for sites covered in fiscal 2014 (296 sites)
- Data for or before fiscal 2013: The scope of data is the same as that for sites covered in fiscal 2013 (300 sites)
- •Data without any indication of fiscal years or regions refers to global results in fiscal 2014.

### **Assurance**

KPMG AZSA Sustainability Co., Ltd. assured our major environmental performance data in this report. For details of the indicators subject to independent assurance, please refer to the independent assurance report on page 220.

### **Reference Guidelines**

Sustainability Reporting Guidelines G4 by the Global Reporting Initiative (GRI) Environmental Reporting Guidelines 2012 by the Ministry of the Environment, Japan \*We provide ISO26000 and GRI4 content indexes at the back of this report.

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Company Name: Panasonic Corporation

**Head Office Location:** 

1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan

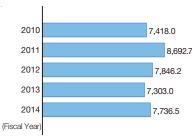
Tel: +81-6-6908-1121

Founded: March, 1918 (incorporated in December, 1935)

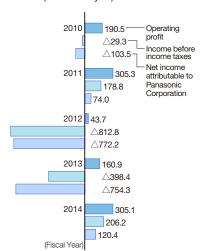
Representative: Kazuhiro Tsuga, President

Common Stock: 258.7 billion yen





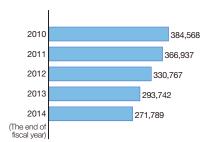
#### Profit (billions of yen)



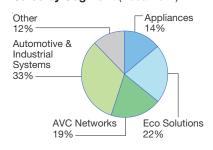
Note: •Panasonic's consolidated accounting conforms to U.S. generally accepted accounting principles (U.S. GAAP).
•Number of consolidated companies: 505 (including parent companies)
•Number of associated companies under the equity method: 92

•The symbol '△' indicates loss.

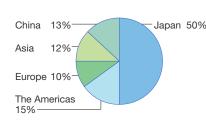
### Number of Employees (persons)



Sales by Segment (Fiscal 2014)

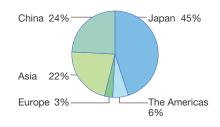


Sales by Region (Fiscal 2014)



Rate of Employees by Region

(at the end of Fiscal 2014)



### **Main Products and Services**

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

### **Appliances**

Air conditioners, refrigerators, washing machines, personalcare products, electric motors, microwave ovens, compressors, showcases, large-sized air conditioners, vacuum cleaners, rice cookers, fuel cells, etc.

### **Eco Solutions**

Lighting fixtures and electric lamps (including LED lighting), solar photovoltaic systems, wiring devices, interior furnishing materials, water-related products, ventilation and air-conditioning equipment, air purifiers, etc.

### **AVC Networks**

LCD TVs, aircraft in-flight entertainment systems, PCs, digital cameras, projectors, home audio equipment, video

equipment, mobile phones, surveillance cameras, IP-related equipment, social infrastructure systems equipment, etc.

### **Automotive & Industrial Systems**

Car-use-multimedia-related equipment, electrical components, lithium-ion batteries, storage batteries, dry batteries, electronic components, electronic materials, automation controls, semiconductors, optical devices, electronic-components-mounting machines, welding equipment, bicycles, etc.

#### **Other**

Detached housing, rental apartment housing, land and buildings for sale, home remodeling, imported materials and components, etc.

## **Top Message**



### Realizing "A Better Life, A Better World"

Fiscal year 2015 marks the second year of Panasonic's current mid-term management plan, which covers the three years to March 2016. Now we are at the stage to bring our growth strategies to fruition.

Ever since our founding, we at Panasonic have been carrying out our activities following our basic management philosophy: to make a contribution through our business operations to improving the lives of people around the world, as well as to the further progress of society. And, over the years, we have always been conscious of the changes of the times. Our aim is to contribute to the development of a sustainable future and to be in harmony with the global environment and society.

Based on this philosophy, we have nurtured our core values, which we call "our consumer electronics DNA." With this DNA central to all of our activities, we will pursue our corporate slogan "A Better Life, A Better World" by meeting the needs of all our customers, as individuals and in almost every aspect of their lives. Our scope of business ranges from inside the home, the office, and the store to the automobile, the airplane and around the town.

As an example of our residential business, we are accelerating the development of a Smart City. We are engaged in building a sustainable environment in the Fujisawa Sustainable Smart Town, which opened in April 2014. In this endeavor, we aim to reduce CO<sub>2</sub> emissions by 70 percent, cut daily water consumption by 30 percent, and reach a renewable energy utilization ratio of 30 percent or more – all without lowering the quality of life. Concerning safety and security, our target is to ensure utilities for three days following any contingency. Going forward, we will actively share what we have learned here, thus spreading "A Better Life" throughout the world.

In our automotive business, we play an active role in providing automobile batteries that are highly regarded for their excellent environmental performance and reliability. We work along with our partners – who are addressing issues such as global warming and various energy-related problems – with their electric cars and vehicles equipped with idle-reduction systems.

Meanwhile, the world faces pressing issues such as water shortages, increasing greenhouse gases, and air pollution. To address these issues, we are engaged in the research and development of technologies such as water purification systems that use photocatalysis, as well as artificial photosynthesis systems. We hope to leverage leading-edge technologies such as these so that we can contribute to "A Better World" for the future.

In order to accomplish our aims, we must first implement the business activities for which we bear responsibility. Complying with laws, regulations and business ethics is the foundation of our management. On top of this, we respect fundamental human rights, ensure a safe and comfortable work environment, and give the utmost consideration to the health of our employees. In addition, we will actively address environmental issues related to CO<sub>2</sub> emissions, resource recycling, water, chemical substances management, and biodiversity. In making progress in dealing with such issues, cooperation with our suppliers is crucial, as we consider the total picture of the global supply chain.

At Panasonic, we are fully committed to realizing "A Better Life, A Better World." We would like to ask for your continued understanding and support moving forward.

July 2014

President, Panasonic Corporation

## 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.

### 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.

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.



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

"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

The Panasonic Code of Conduct was formulated in 1992 as a specific guide to the practice of the Company's management philosophy. (Subsequently revised and updated, the 2014 edition is the current standard.)

Panasonic formulated its Sustainability Policy in 2013 as a written record of its efforts to contribute to today's society and to fulfill its corporate social responsibility (CSR).

### **Panasonic Code of Conduct**

The Panasonic Code of Conduct provides practical guidelines for carrying out the Company's management philosophy. The Code of Conduct outlines the behavior and actions that must be taken in the conduct of our daily business activities as well as our basic approach and expectations toward efforts aimed at contributing to the development of a sustainable society. The Code was first put in place in 1992. The current 2014 Code is after revision and update. The Code is a unified global standard that is published in 22 languages and shard among the Group's employees worldwide.

The essence of our Code of Conduct incorporates, among other things, features of the Universal Declaration of Human Rights, the International Labour Organization Declaration on Fundamental Principles and Rights at Work, and the Organization for Economic Co-operation and Development Guidelines for Multinational Enterprises.

### **Chapter 1: Our Core Values**

### **Chapter 2: Implementing the Code in Business Operations**

- I- 1. Research and Development
- I- 2. Procurement
- I- 3. Manufacturing
- I- 4. Marketing & Sales
- I- 5. Public Relations and Advertising
- II- 1. Coexistence with the Global Environment
- II- 2. Product Safety
- II- 3. Compliance with Laws, Regulations and Business Ethics
- II- 4. Use and Control of Information
- II- 5. Information Disclosure
- II- 6. Corporate Citizenship Activities
- III. Brand

### **Chapter 3: Employee Relations**

### ▶Panasonic Code of Conduct

http://panasonic.net/corporate/philosophy/code/

## **Sustainability Policy**

Panasonic's Sustainability Policy is based on the Company's management philosophy and provides a clear statement regarding what the Company must do to fulfill its corporate social responsibility (CSR) and make contributions to today's society.

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.

## System for the Promotion of CSR Activities

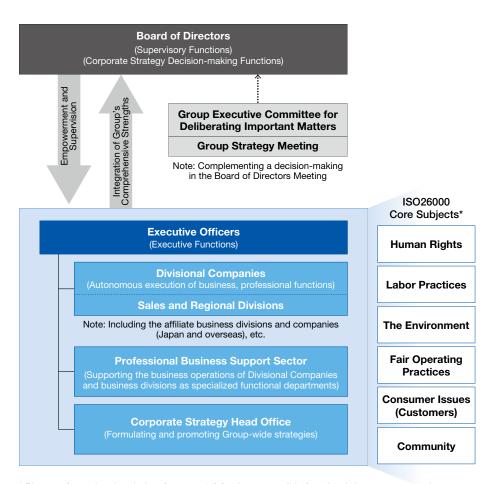
### Systematic Management for Sustained Progress to Address Challenges Tied to Sustainability

Panasonic places a responsible executive and a responsible functional department to take charge of each field of the core subjects (human rights, labor practices, environment, fair operating practices, consumer issues, and community) covered under ISO26000 as well as the supply chain. On a Divisional Company, business division, region and function basis, steps are taken to put in place a variety of meeting structures and to engage with stakeholders with feedback incorporated into daily activities. Autonomous efforts are promoted while confirming progress through the use of a PDCA cycle.

Decisions are also made for corporate-wide issues through the Group Strategy Meeting, Group Executive Committee for Deliberating Important Matters, and the Board of Directors.

Materiality is selected and decided upon based on daily activities in each field of operation and is factored into operational policy.

Moreover, CSR activities are promoted in line with a fundamental idea of respecting domestic and international guidelines, as well as the concerns of stakeholders.



<sup>\*</sup> Please refer to the chart below (on page 11) for the responsible functional department, meetings, stakeholder engagement and management system of each field.

## Respecting Global Standards, Norms, Guidelines and Initiatives

Panasonic is developing its business with a firm respect for global standards, norms, guidelines and initiatives, including the Universal Declaration of Human Rights. This thinking is reflected as part of our business activities policy in the "Panasonic Code of Conduct" and "Sustainability Policy."

## Promotion of Initiatives based on Dialogue with Stakeholders

Panasonic promotes discussions on a number of fronts with a wide range of stakeholders around the world, including customers, investors, suppliers, national governments, industry organizations, NPOs and NGOs, local communities and employees. Opinions received are incorporated into our business activities and product development.

### Global Standards, Norms, Guidelines and Initiatives

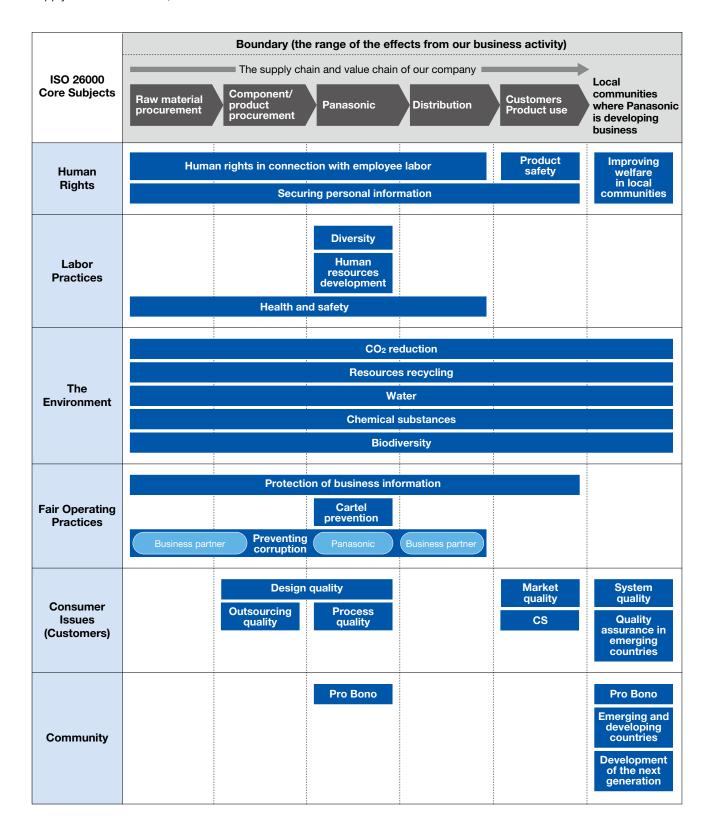


### System and Organization to Promote CSR Activities to Cover ISO26000 Core Subjects and the Supply Chain

ISO 26000 Core Subjects and the Supply Chain	Responsible Executive and Functional Department	Meetings for Policy Development and Promotion		Stakeholder Engagement (target stakeholders)	Management System
Organizational Governance		Board of Directors     Corporate Auditors and the Board of Corporate Auditors     Global and Group (G&G) Risk Management Committee	<b>↔</b>	General meeting of shareholders (Shareholders)     Outside directors, outside corporate auditors     Hotline	•Internal control system
Human Rights	Executive in charge of Personnel     Human Resources & Industrial Relations Dept.	HR Meeting     Meeting for personnel executives	<b>*</b>	Management-Labor Committees and Labor-Management Councils (Employees)     Hotline (employees)     Panasonic Group employee opinion survey, PIW in-house portal (employees)     Dialog (NGO/NPO)     Responding to CSR requests (BtoB customers)     Providing SRI information (investors)	•Overseas human resources and labor assessment
Labor Practices	Executive in charge of Personnel     Human Resources & Industrial Relations Dept.	HR Meeting     Meeting for personnel executives     Occupational Health and Safety Committee	<b>←</b>	Occupational Health and Safety Committee (employees) Responding to CSR requests (BtoB customers) Providing SRI information (investors)	•Health and Safety Management system (OHSAS18001/ MSH)
The Environment	Executive in charge of Environmental Affairs     Environment Dept.	Operation Policy Meeting of the Global Manufacturing Division Environmental Working Committee	<b>*</b>	Proposals on environmental policy (Government, institutions)  Products, services, advertising, showrooms, exhibitions (consumers)  Responding to CSR requests (BtoB customers)  Providing SRI information (investors)  Contribution to local communities, environmental education (local communities)  Green procurement (suppliers)  Dialog, cooperative activities (NGOs/NPOs/experts in the field)  Environmental education (Employees)	•Environmental management systems (EMS) (ISO14001)
Fair Operating Practices	Executive in charge of Legal Affairs     Legal Dept.	Compliance Committee     Information Security     Committee     Export Control Committee     Legal Kick-off Meeting	<b>~</b>	Compliance awareness survey (employees) In-house notification hotline (employees, business partners) Responding to CSR requests (BtoB customers) Providing SRI information (investors)	Confirmation of adherence to the Code of Conduct     Compliance awareness survey     Internal notification system
Consumer Issues (Customers)	Chief Quality Officer Product Safety & Quality Administration Dept. CS Dept.	Customer Value Enhancement Committee     Quality Policy Council Conference     Group-wide General Product Safety Committee/Quality Policy Committee     Corporate VOC Committee (Corporate VOC Activity Meeting)	<b>↔</b>	Quality Affairs Conference     (Panasonic Shop Union President)     Lifestyle research (consumers)     VOC/VOE (consumers)     Customer support center     (consumers)     Consumer Affairs Center     (government)     CLUB Panasonic (consumers)	Panasonic quality management system (P-QMS: ISO9001) ISO27001
Community	Executive in charge of Citizenship     CSR & Citizenship Dept.	Monthly report     Global CSR Meeting (Meeting of regional CSR officers)	<b>↔</b>	*World Heritage eco learning program (UNESCO)     *100 thousand solar lantern project (regional govt. bodies, NGOs/NPOs)     *PIVoT, PIWS     *NPO Support Fund, Educational Foundations	Measuring efficacy of expenditure on corporate citizenship activities
Supply Chain	Executive in charge of Procurement     Procurement Dept.	Meeting of group procurement officers	<b>→</b>	Panasonic Excellent Partners Meeting /ECO-VC (Suppliers) Responding to CSR requests (BtoB customers) Providing SRI information (investors) Conflict minerals pilot program (OECD)  JEITA (Industry organization)	•Supplier CSR evaluation

## **Boundaries and Materiality for CSR Activities**

In promoting CSR activities, we factor in the impact of the Company's business activities on stakeholders, taking the entire supply chain into account, in each of the core ISO26000 areas.



### Corporate Governance, etc.

This section includes the matters of consolidated companies. This section refers to the matters as of June 27, 2014, unless otherwise indicated.

### 1. Corporate Governance

### (1) 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 Audit & Supervisory Board Members (A&SBMs) and the Audit & Supervisory Board (A&SB), 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 Office, 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 parts of functions such as the Corporate R&D Group and the Corporate Legal Affairs Division, which had previously been functions 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 April, 2013, the Company introduced the business division system and positioned business divisions as basic management units. In FY2014, the Company has forty-three (43) business divisions and each of the business divisions is autonomously managed to formulate its respective midterm management plans and business plans, and is responsible for R&D, production and sales as well as its cash and profit management on a global basis. In addition, four (4) Divisional Companies (Appliances, Eco Solutions, AVC Networks and Automotive & Industrial Systems), the aggregation of the business divisions, support the business division system. The Company has established the following corporate governance system suitable for the Company's business structure based on the four (4) Divisional Companies and forty-three (43) business divisions.

### (2) 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 four (4) Divisional Company-based management structures. Under this structure, the Company has empowered each of four (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 (20) Executive Officers (excluding those who concurrently serve as Directors), which include senior managements of each of four (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, along with sound and appropriate monitoring at the same time, the Board of Directors, as a decision-making body for Group-wide matters, concentrates on decisions about the corporate strategies and the supervision of the four (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 four (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. Moreover, to clarify the responsibilities of Directors and create a more dynamic organization of the Board of Directors, the Company has limited the term of each Director to one year.

### Audit & Supervisory Board Members (A&SBMs) and Audit & Supervisory Board (A&SB)

Pursuant to the Company Law, the Company has elected A&SBMs and established A&SB, made up of A&SBMs. The A&SBMs and A&SB 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) A&SBMs, including three (3) Outside A&SBMs. Additionally, the Company elected A&SBMs who have substantial finance and accounting knowledge, A&SBMs participate in the general meetings of shareholders and the Board of Directors, receive reports from Directors, Executive Officers, employees and Accounting Auditors, and exercise other auditing authority granted to A&SBMs under the law. Fulltime Senior A&SBMs also attend important meetings and conduct visiting audits to business offices in order to ensure effective audits. In order to augment the internal auditing functions in the Group, the Company assigns nine (9) full-time Audit & Supervisory Officers (A&SOs), who directly report to the Senior A&SBMs of the Company, to the four (4) Divisional Companies. The Company also inaugurated regular Panasonic Divisional Companies Audit & Supervisory Officers' Meeting (comprising a total of eleven (11) members, of which two (2) are Senior A&SBMs of the Company and nine (9) are A&SOs of the Divisional Companies ) chaired by the Senior A&SBM of the Company and the Panasonic Group Audit & Supervisory Board Members' Meeting (comprising a total of thirty-two (32) members, of which two (2) are Senior A&SBMs of the Company, nine (9) are A&SOs of each Divisional Company and twenty-one (21) are A&SBMs of the Group Companies) to enhance coordination among the Company's A&SBMs, A&SOs of the Divisional Companies and audit & supervisory board members of the Group companies, for effective functioning of the entire group corporate governance structure. In addition, in the course of the performance of their duties, A&SBMs maintain close contacts with the Internal Audit Department and other departments, which perform business audits and internal control audits, to ensure the efficiency of audits. A&SBMs regularly receive from the Internal Audit Department and other sections regular reports regarding the status involving the internal control system and results of audits. A&SBMs may request the Internal Audit Group or Accounting Auditors to conduct an investigation, if necessary. Also, in order to enhance the effectiveness of the audits conducted by A&SBMs and to ensure the smooth implementation of audits, the Company has established a A&SBM's Office with six (6) full-time staff under the direct control of the A&SB.

Mr. Yoshihiro Furuta, a Senior A&SBM of the Company, has substantial finance and accounting knowledge, having held the position of General Manager, Accounting, at Matsushita Electric Works, Ltd. Mr. Toshio Kinoshita, Outside A&SBM of the Company, has substantial finance and accounting knowledge, having held the career experiences with a corporate accounting in global companies in Japan and overseas for long periods as a certified public accountant.

All of the Outside Directors and Outside A&SBMs are notified to the Japanese stock exchanges as "independent directors/ audit & supervisory board members" defined in article 436, paragraph 2 of Securities Listing Regulations of the Tokyo Stock Exchange and are unlikely to have any conflict of interests with Panasonic's shareholders.

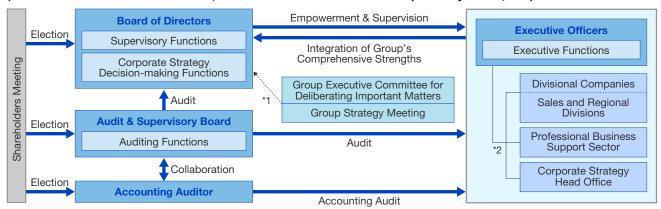
### **Group Executive Committee for Deliberating Important Matters**

In October 2012, the Company established and has operated the Group Executive Committee for Deliberating Important Matters, where discussions are conducted prior to the Board of Directors, with the aim of ensuring productive deliberations at the Board of Directors. 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 deliberated. 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 the matters 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-term and long-term strategies and certain important issues. The meeting is generally held twice a month. The attendees consist of approximately ten (10) people in managerial positions called as the Group Management Team and include the President and the presidents of four (4) Divisional Companies. The officers of related businesses and functions also join the meeting, depending on the matter to be discussed. 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 Audit & Supervisory Board, etc.)



- \*1: Complementing a decision-making in the Board of Directors
- \*2: Including the affiliate business divisions and companies (Japan and overseas), etc.

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

The 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 held on July 31, 2013 that this basic policy should be retained. The details are as follows:

### Basic Policy Regarding the 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 A&SBMs in auditing, and matters concerning the independence of such employees from Directors

The Company shall establish an organization independent from Directors and have employees to assist for A&SBMs in order to enhance the effectiveness of audits by A&SBMs and facilitate the effective performance of audits.

### (g) System for reporting to A&SBMs

The Company shall ensure that there is a system by which Directors and employees, etc. can report to A&SBMs.

### (h) System for ensuring effectiveness of audits by A&SBMs

The Company shall develop a system in which effective audits can be executed in accordance with the audit plan established by A&SBMs 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 responsibilities relating to execution of business to Executive Officers, with decisions subjected 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 the Divisional Companies and under such system the responsibility of Directors are clarified. Moreover, audits are conducted by A&SBMs and the A&SB. Each of Divisional Companies also has a management committee and an A&SO, corresponding to the Board of Directors meeting and the A&SBMs 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 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 internal rule of the approval procedures for material matters, clear separation of roles for Directors and Executive Officers, the bold transfer of authority to each of Divisional Companies and business division, the holding of Group Strategy Meetings, 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 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 generating of the corporate compliance committee. Also, with regard to antisocial forces, the Company thoroughly prevents any relationships with antisocial forces by assigning persons-in-charge of preventing undue claims at the department which handle such claims.

## (f) Matters concerning employees who assist A&SBMs in auditing and matters concerning independence of such employees from Directors

The Company established the Audit & Supervisory Board Members' Office to which the full-time employees assisting the A&SBMs is, under the direct control, which is separate from other executive departments.

### (g) System for reporting to A&SBMs

Directors and employees, etc report on business operations and issues to A&SBMs at regular meetings held by A&SBMs or at other important meetings by requesting A&SBMs to attend, as necessary. The Company also established a system by which employees, etc. can report directly to the A&SB about concerns with regard to accounting or auditing irregularities.

### (h) System for ensuring effectiveness of audits by A&SBMs

The Company has A&SOs at each of Divisional Companies. who assists A&SBMs in auditing compliance status. The Company also established and operates the Meeting of Panasonic Group Audit & Supervisory Board Members chaired by the Senior A&SBM in order to enhance collaboration among the Company's A&SBMs and the A&SOs of Divisional

Companies. Moreover, each department has been cooperating to enhance the effectiveness of audits by A&SBMs through each department's collaboration during the visiting audits of business offices inside and outside Japan by A&SBMs and through the Internal Audit Department's reports to A&SBMs 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 its rights as the shareholder of the Group companies and dispatches Directors and A&SBMs to the Group companies. In addition, the Company established the approval procedures for final decisions on material matters, and established function-related regulations across the Group. Moreover, the Internal Audit Department 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 Financial Instruments and Exchange Act.

Notes: 1. "Group companies" means subsidiaries as stipulated in the Company Law of Japan.

2. From April 2, 2014, the Meeting of Panasonic Group Audit & Supervisory Board Members was reorganized to Panasonic Divisional Companies Audit & Supervisory Officers' Meeting which comprises of Senior A&SBMs of the Company and A&SOs of each Divisional Company. To enhance its Group auditing systems, the Company established Panasonic Group Audit & Supervisory Board Members' Meeting which comprises of the members of Panasonic Divisional Companies Audit & Supervisory Officers' Meeting and A&SBMs of the Group Companies.

## (4) 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 be accountable 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 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, are timely and accurately reported from each relevant department, that has the important 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.

Also, 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 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", depending upon the nature thereof; Thus, the Company has established a structure 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, and makes efforts to conduct the disclosure at the time that the organization, which substantially decides on executions of business of the Company, makes a resolution or determination, or 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 the disclosure.

Moreover, the Company has established disclosure control procedures in order to comply with relevant laws and ordinances, the rules of financial instruments exchanges and any other regulations, and to implement the fair, accurate and timely disclosure of information about the Company Group, etc. 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 supervision 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.

### (5) Internal Control Over Financial Reporting

The Company has documented the actual status of its internal control system, with integrated control provided by the Internal Control Promotion Office, in order to ensure reliability in the 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. Basing on the audits, the Internal Control Promotion Office supervises the whole-group internal control audits 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 2014 Panasonic had approximately 400 personnel assigned to conduct internal audits in the Internal Auditing Group.

Note: As of October 1, 2014, the function of internal control over financial reporting was transferred from Internal Auditing Group to Internal Control Promotion Office which is under Accounting and Finance Director.

## (6) Amount of compensation for Directors and Audit & Supervisory Board Members (A&SBMs)

With respect to the remuneration for Directors and A&SBMs, the maximum total amounts of remuneration for all Directors and A&SBMs 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 A&SBM is determined upon discussions among the A&SBMs.

In order to align compensation for Directors according to their respective contribution to the management of the Company, the amounts of remuneration and bonuses for Directors are linked to individual performance and based on the management control indices such as free cash flow and CCM. 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 a management control index developed by the Company to evaluate return on capital.

Classification	Number of	Amounts	
Olassification	persons		Basic salary
Directors (other than Outside Directors)	16	613	613
A&SBMs (other than Outside A&SBMs)	2	67	67
Outside Directors	3	30	30
Outside A&SBMs	3	34	34

The Company introduced a stock-type compensation stock option plan for Directors of the Company (excluding Outside Directors) by the resolution at the 107th Ordinary General Meeting of Shareholders of Panasonic which was held on June 26, 2014, for the purpose of providing an incentive for Directors to further contribute to the improvement of long-term operating results and higher corporate value through sharing the benefits and risks of share price fluctuations with Panasonic's shareholders.

### (7) 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 following is accountants who conducted the accounting audit Panasonic Corporation. The number of years each accountant had continued to audit the Company 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 161 certified public accountants and 98 other people.

### (8) Outside Directors and Outside Audit & Supervisory Board Members (A&SBMs)

The Company elects three (3) Outside Directors and three (3) Outside A&SBMs.

Mr. Ikuo Uno, an Outside Director of the Company, is an executive advisor to the Board of Nippon Life Insurance Company. Although Nippon Life Insurance Company is one of the Major Shareholders of Panasonic, Mr. Uno does not have any other noteworthy relationships with the Company. Mr. Yoshio Sato, an Outside A&SBM of the Company, is Chairman and Representative Director of Sumitomo Life Insurance Company. Although Sumitomo Life Insurance Company is one of the Major Shareholders of Panasonic, Mr. Sato does not have any other noteworthy relationships with the Company.

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

Outside Directors directly or indirectly cooperate with the internal audit, audit by A&SBMs and accounting audit, receive reports from the Internal Control Department and conduct an effective monitoring through reports on financial results at the Board of Directors and through reviews of the basic policy regarding the development of the internal control systems and other methods.

Outside A&SBMs directly or indirectly cooperate with the internal audit, audit by A&SBMs and accounting audit, receive reports from the Internal Control Department and conduct an effective monitoring through reports on financial results at the Board of Directors, through reviews of the basic policy regarding the development of internal control systems, exchanges of opinions and information at A&SB and other methods.

Note: Major Shareholders: Shareholders listed in (7) Major Shareholders of 1. Information on the Company's Stock, etc.

## (9) Contract between the Company and Outside Directors / Outside Audit & Supervisory Board Members (A&SBMs) under Paragraph 1 of Article 427 of the Company Law

The Company has entered into liability limitation agreements with all Outside Directors and Outside A&SBMs, 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.

## (10) 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 of providing returns 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 A&SBM (including a former A&SBM) 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 A&SBMs to perform their duties in a satisfactory manner.

### (11) 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.

### (12) 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 with certainty.

### (13) Information on shareholdings

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

Number of stock names: 163

Total amount recorded in the balance sheet of the Company: 66,618 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, 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

Stock name	Number of shares (shares)	Balance sheet amount (Millions of yen)	Purpose of holding
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

(As of March 31, 2014) Specified investment securities

Stock name	Number of shares (shares)	Balance sheet amount (Millions of yen)	Purpose of holding
Tesla Motors, Inc.	1,418,573	30,434	Maintaining and enhancing of relationship with issuer and business transactions
Tokyo Broadcasting System Holdings, Inc.	3,083,180	3,678	Maintaining and enhancing of relationship with issuer and business transactions
Renesas Electronics Corporation	4,166,600	3,279	Maintaining and enhancing of relationship with issuer and business transactions
Toray Industries, Inc.	4,214,000	2,874	Maintaining and enhancing of relationship with issuer and business transactions
Daiwa House Industry Co., Ltd.	1,530,000	2,679	Maintaining and enhancing of relationship with issuer and business transactions
Mazda Motor Corporation	3,495,030	1,601	Maintaining and enhancing of relationship with issuer and business transactions
Sekisui House, Ltd.	1,112,071	1,425	Maintaining and enhancing of relationship with issuer and business transactions
Gorenje gospodinjski aparati, d.d.	2,320,186	1,420	Maintaining and enhancing of relationship with issuer and business transactions
EPCO Co.,Ltd.	694,000	1,386	Maintaining and enhancing of relationship with issuer and business transactions
Joshin Denki Co., Ltd.	1,085,004	895	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	
Toyota Motor Corporation	3,000,000	17,478	Have a right to exercise of voting rights	
Honda Motor Co., Ltd.	1,000,000	3,634	Have a right to exercise of voting rights	

## (c) Equity securities for pure investment

Not applicable.

### 2. Audit Fees

### (1) Fees to Certified Public Accountants

Category	Fiscal year ended	d March 31, 2013	Fiscal year ended March 31, 2014		
	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)	
Panasonic Corporation	729	_	715	73	
Consolidated subsidiaries	679	3	579	_	
Total	1,408	3	1,294	73	

### (2) Other fees

In addition to the above, audit fees paid by Panasonic Corporation 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 2,101 million yen for the fiscal year ended March 31, 2013, and 2,510 million yen for the fiscal year ended March 31, 2014, 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.

### (3) Descriptions of non-audit services to the Company

Non-audit services to the Company in the fiscal year ended March 31, 2013 and 2014 include agreed-upon procedures to which the fee is charged.

### (4) 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.

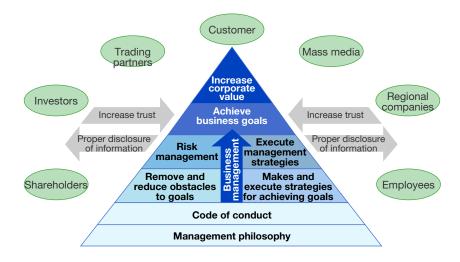
### **Risk Management**

### **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."

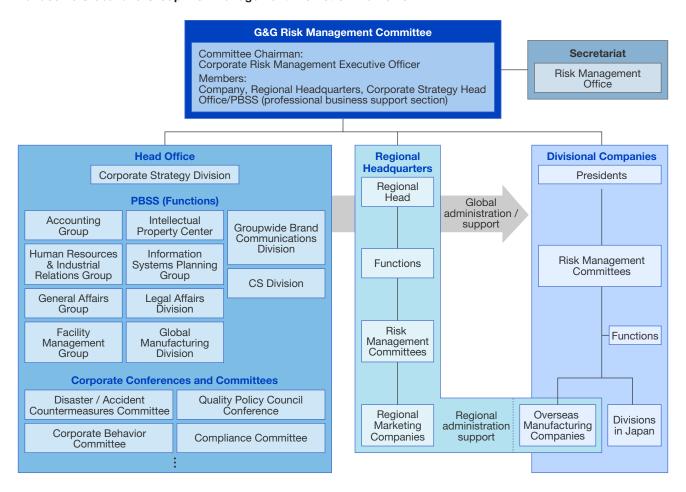
At Panasonic, risk management functions in tandem with the establishment and execution of management strategies. Combining these two functions better enables us to accomplish business objectives and increase our corporate value. Disclosing risk information in public in an appropriate way and improving 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**

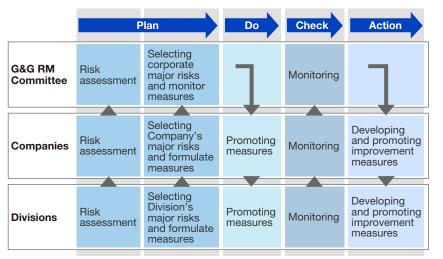
Panasonic has a Global & Group (G&G) Risk Management Committee since April 2005 to promote group wide risk management that is chaired by the Corporate Risk Management Executive Officer and includes Company CROs (Chief Risk Officer), Regional Headquarters, and managers from Corporate Strategy Head Office 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.



### **Basic Framework**

Panasonic has three levels of management cycles for risk management: the G&G Risk Management Committee, Divisional Companies, and business divisions. Each year, an assessment of the impact of risks that could affect the business management of Divisional Companies and affiliated business divisions is undertaken using a single, global set of standards incorporating the potential impact on business operations, probability of risk occurring, and other factors. Steps are then taken to identify major Divisional Company risks and appropriate countermeasures implemented. Taking into consideration these major Divisional Company risks, the G&G Risk Management Committee considers and identifies those major risks that require attention from a Group-wide perspective. The G&G Risk Management Committee also monitors progress made concerning countermeasures as a means to improve and strengthen Group-wide risk management.

### **Basic Framework for Risk Management**



### Corporate Major Risks for FY2015

- •Natural disaster (earthquakes, tsunamis, weather-related disasters, etc.)
- Quality problem
- Cartels
- Cyberattack

### Corporate Major Risks for FY2014

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

### **Business Continuity Management (BCM) Initiatives**

Guided by its management philosophy, and through its production and sales activities, Panasonic, as a public entity of society, is devoted to the progress and development of society and the well-being of people. In this manner, the Company is working to enhance the quality of life throughout the world. Since 2005, Panasonic has in particular recognized the importance of engaging in continuous business activities as a part of efforts to fulfill its corporate social responsibility. Accordingly, the Company is promoting activities that will ensure the uninterrupted supply of products and services even in the event of an emergency. Should delivery be suspended for some unforeseeable circumstance, however, Panasonic is also focusing on activities that will bring about the quick resumption of supply.

Looking at projections of a major earthquake directly beneath the Tokyo Metropolitan area as well as the Nankai Trough, Panasonic has established a Companywide task force. This task force is taking the lead in promoting countermeasures based on the government's updated estimates of damage as well as reviewing the Company's BCM.

### **Risk Factors**

Annually, Panasonic conducts a risk assessment by which it surveys to identify potential risks which affect its business activities, evaluates such risks based on its common global standards mainly focusing on the impact to the management of Panasonic and the probability of the materialization of the risks, and prioritizes the risks against which measures should be taken. For the risks identified as material in these processes, each level of Panasonic Group, such as the Corporate, Divisional Companies and Business Divisions, forms and takes countermeasures that correspond to the characteristics of the risks, monitors the progress of such countermeasures, and seeks continuous improvements. 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, 2014.

### 1. Risks Related to Economic Conditions

### Continued or further weakness in Japanese and global economies

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 2015, ending March 31, 2015, the Company anticipates that the overall global economy is expected to grow moderately due to economic recoveries and progress in Europe and U.S., and the economic growth in emerging countries as well as a high level capital investment and public investment in Japan. On the other hand, destabilizing factors such as a geopolitical risk, an effect of contraction of monetary easing in U.S. and a consumption tax increase in Japan may adversely affect its business environment. Panasonic may incur increased costs for additional business restructuring in order to cope with such business environment. If global economy worsens contrary to its 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

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 also affect the yen value of Panasonic's overseas assets and liabilities because they are translated in Japanese yen when Panasonic's consolidated financial statements are presented. Generally, an appreciation of the yen against other major currencies in countries in which Panasonic operates 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. However, in certain business divisions which have shifted the manufacturing sites to overseas, the depreciation of the yen may adversely affect their operating results on a Japanese yen basis due to price increase of the imported products. After the extreme appreciation of the yen against the USD had been put brakes and the Euro in the previous fiscal year, for fiscal 2014 in general, although the depreciation of the yen continued, the impact from the foreign currency movements to the

consolidated Panasonic's operating results has been decreasing partially due to the aforementioned measures, such as shifting manufacturing sites to overseas. However, excessive foreign exchange rate fluctuations may adversely affect the Company's business, operating results and financial condition.

#### Interest rate fluctuations

Panasonic is exposed to interest rate fluctuation risks which may affect the Company's operating 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

Panasonic raises funds for its business through methods such as borrowing from financial institutions and issuance of bonds and commercial papers. Where, among other events, financial market continues to be unstable or deteriorates, financial institutions reduce lending to Panasonic, or rating agencies 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 stocks

Panasonic holds both Japanese and overseas stocks as part of its investment securities. Decreases in the value of the stocks may cause losses due to a decrease the valuation of investment securities, thereby adversely affecting Panasonic's operating results and financial condition. In the case of listed stocks, decreases in the value of the 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

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 price and relationship with business partners which the Company highly depends on

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 times of possible decreases in product demand. In BtoC (business-to-consumer) business areas, amid accelerating changes in the structure of markets, such as a demand shift to emerging markets and lower-priced products, Panasonic's product prices in digital electronics and other business areas may continue to decline. On the other hand, in BtoB (business-to-business) business areas, the Company's business, operating results and financial condition may be adversely affected by the downward price pressure exceeding which can be achieved by the Company's effort, decrease in demand for products, or pressure for capital investment from business partners which the Company highly depends on.

### 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 businesses 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.

### Competition in technological changes and product formats as de facto standards

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. In cases where the technology developed or provided by Panasonic does not lead the market and, instead, the technology developed by its competitors are recognized as de facto standards, the Company may lose its competitiveness in the new markets.

### Competition in recruiting and retaining skilled employees

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

Panasonic develops its businesses by forming alliances or joint ventures with, making strategic investments in, other companies, including investments in start-up companies, and implementing injection of external capital. Furthermore, the importance of strategic alliance with third parties is increasing. Although, in some cases, such alliances are crucial to Panasonic's goal of introducing new products and services, Panasonic may not be able to successfully collaborate or achieve expected synergies with its alliance partners. Furthermore, the alliance partners 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, both through share exchanges, and have restructured its groupwide business organization. However, Panasonic may fail to fully achieve the expected results.

### Shortage of supply of parts, components and services, as well as electricity

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, accidents, 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, non-ferrous metals, and parts and components may increase due to changes in demand and supply conditions 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. 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 Japan, the production at certain 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.

### Customers' 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

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

### Significant direct or indirect costs resulting from product liability or warranty claims

The occurrence of quality problems due to product defects, including safety incidents, relating to 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 arising due to these problems, Panasonic's business, operating results and financial condition may be adversely affected.

### Damages related to intellectual properties

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. 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

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

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 with the aim of eliminating the use of environmentally hazardous materials is imposed, or if Panasonic Group 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

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 or other third parties' actions including fraudulent access to the systems, 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.

### Inconveniences or legal liability due to governmental laws and regulations

Panasonic is subject to governmental regulations in Japan and other countries in which it conducts its business, including obtaining 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, labor relations, 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 and Accidents or Unpredictable Events

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 and accidents 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.

### 6. Other Risks

### Panasonic's pension plan benefit obligations

Panasonic Group has contributory, funded benefit pension plans covering substantially all employees in Japan who meet eligibility requirements. The Company and certain domestic subsidiaries made a transition from the defined benefit pension plan to the defined contribution pension plan for the contributions made on or after July 1, 2013. Regarding the past contribution, 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.

### Impairment of some long-lived assets

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

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 recognized tax benefits on temporary differences and loss carryforwards 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 under the equity method

Panasonic holds equities of several associated companies under the equity method. 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.

## **Environment: Policy**



### **Environmental Policy**

Contributing to society has been the management philosophy for Panasonic ever since its founding, and we have been taking measures against pollution since the 1970s. 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.

With the Panasonic Group's new brand slogan introduced in fiscal 2014, "A Better Life, A Better World," we are promoting environmental initiatives as an important element in achieving this goal. In production activities, exhaustive energy-saving measures have been implemented in all factories worldwide, pushing for further CO<sub>2</sub> reduction in our production activities. At the same time, Panasonic has introduced its own indicator called "the size of contribution in reducing CO<sub>2</sub> emissions" to strengthen CO<sub>2</sub> reduction efforts during product use as well. We have increased the number of products boasting top environmental performance levels in the industry. Furthermore, we are cutting down CO<sub>2</sub> emissions from product use at home by expanding the scope of products equipped with the ECONAVI function, which uses sensor technology etc. to detect wasteful electricity and cut down consumption automatically. Moreover, actions are being taken to expand the use of recycled resources in our pursuit of Recycle-oriented Manufacturing, such as through the launch of Resources Recycling-oriented Products which use recycled resources.

### **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 enhanced 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 CO2 emissions through production activities and products/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 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. We are focusing on maximizing the size of contribution in reducing CO<sub>2</sub> emissions, which is an indicator that represents our efforts for CO<sub>2</sub> reduction, to contribute to making net CO<sub>2</sub> emissions from the international community peak and decline thereafter at an earlier timing. As for resources recycling, we promote higher recycled resource utilization ratio and factory waste recycling rate, as well as create more Resources Recycling-oriented Products to materialize 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 BtoB sector while keeping strengths in the home appliances field, to 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 initiatives 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"**

Environ	mental Action Guideline	Targets for 2018	Pages
(1) Initiatives	to address environmental cha	allenges	
CO <sub>2</sub> Reduction	We will reduce CO <sub>2</sub> emissions through production activities and products/services.	<ul> <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 compared to 2007 (Self-owned buildings in Japan))</li> <li>Increase the Business of Energy Conservation Support Service for the Entire Factory</li> </ul>	pp. 43-63
Resources Recycling	We will work to make the best use of resources by pursuing Recycling-oriented Manufacturing.	Reduce total resources used and increase recycled resources used (Recycled resource utilization ratio: 16% or more in 2018) Achieve "zero waste emission" from production activities at sites both in and outside Japan (Factory waste recycling rate: 99.5% or more in 2018) Expand the creation of Resources Recycling-oriented Products	pp. 64-76
Water	We will conserve water resources through efficient use of water and prevention of contamination.	Increase products to save water and contribute to water recycling     Reduce water consumption in production activities and increase the use of recycled water	pp. 77-79
Chemical Substances	We will reduce the impact of chemical substances on human health and the environment.	<ul> <li>Develop alternative technologies for environmentally hazardous substances</li> <li>Discontinue the use of substitutable environmentally hazardous substances in products</li> <li>Minimize the release of environmentally hazardous substances from factories</li> </ul>	pp. 80-84
Biodiversity	We will consider and conserve biodiversity.	Increase products contributing to biodiversity conservation     Use green areas in business divisions to contribute to biodiversity conservation     Promote green procurement for wood toward sustainable utilization of forest resources	pp. 85-89

Environmental Action Guideline		Targets for 2018	Pages	
(2) Initiatives b	(2) Initiatives based on collaboration with stakeholders			
Customers	We will provide products and services that create environmental value for customers with our technical strengths.	Offering products, services, and solutions that improve people's lifestyles, reduce burden on the environment, and help to make our society more sustainable     Promote 'eco' marketing firmly rooted in each region and country	pp. 38-40 91-98	
Supply Chain	We will expand our environmental contributions with our partner companies.	Increase environmental contributions through the promotion of Green Procurement with suppliers     (Establish environmental management systems and address five major environmental challenges)     Promote the ECO-VC (Value Creation) Activity aimed at simultaneously achieving environmental contributions and cost reductions	pp. 87, 89-90	
Local Communities	We will deepen communications with local communities and work as a team to address environmental challenges.	<ul> <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 2 million children around the world by 2018)</li> </ul>	pp. 91-100, 102	

Note: 2005, 2007, 2015 and 2018 here refer to fiscal 2006 (April 1, 2005 – March 31, 2006), fiscal 2008 (April 1, 2007 – March 31, 2008), fiscal 2016 (April 1, 2015 – March 31, 2016), and fiscal 2019 (April 1, 2018 – March 31, 2019), respectively.

Our performance in fiscal 2014 compared with the numerical targets in the Green Plan 2018 is shown below.

### Numerical Targets and Performance Levels under Green Plan 2018

Numerical targets	Results in 2013	Pages
Size of contribution in reducing CO <sub>2</sub> emissions*1: 47 million tons in 2015	41.58 million tons	pp. 44, 45, 48, 56
Reduction in CO <sub>2</sub> emissions per basic unit in logistics*2: By 46% or more in 2018 compared to 2005 (Japan and international)	40%	p. 61
Reduction in CO <sub>2</sub> emissions from offices: By 2% or more on yearly average until 2018 compared to 2007 (Self-owned buildings in Japan)	6%	p. 58
Recycled resource utilization ratio*3: 16% or more in 2018	17.2%	p. 65
Factory waste recycling rate*4: 99.5% or more in 2018	98.7%	p. 75
Provide environmental education to 2 million children around the world by 2018	1.993 million children*5	p. 99

<sup>\*1</sup> 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 the improvements by the energy-saving performance of our products and productivity from fiscal 2006, and this amount is combined with the emission reduction resulting from power generation by energy-creating products. (see pages 43-44)

Note: 2005, 2007, 2009, 2013, 2015 and 2018 here refer to fiscal 2006 (April 1, 2005 – March 31, 2006), fiscal 2008 (April 1, 2007 – March 31, 2008), fiscal 2010 (April 1, 2009 – March 31, 2010), fiscal 2014 (April 1, 2013 – March 31, 2014), fiscal 2016 (April 1, 2015 – March 31, 2016), and fiscal 2019 (April 1, 2018 – March 31, 2019), respectively.

<sup>\*2</sup> CO<sub>2</sub> emissions per basic unit in logistics = CO<sub>2</sub> emissions in logistics/Transportation weight

<sup>\*3</sup> Recycled resource utilization ratio = Recycled resources used/Total resources used

<sup>\*4</sup> Factory waste recycling rate = Amount of resources recycled/ (Amount of resources recycled + Amount of final disposal)

 $<sup>^{\</sup>star}5$  Cumulative total from 2009 to 2013. Results for 2013 alone is 528,000.

# **Environment: Special Feature—Globalization of the Housing Business**



### **PanaHome Corporation**

### **Business Expansion in Malaysia**

In a drive to expand its housing business, PanaHome Corporation built its first detached-type show house outside Japan (under Southeast Asian specifications) in Malaysia's capital, Kuala Lumpur in March 2013. The show house is operated as a Panasonic Group sales center for all-round housing proposals to prospective buyers, to resolve housing-related issues in Malaysia as well as to offer a healthy, comfortable, and eco-conscious living.



Show house opened in March 2013



Promotion of photovoltaic power panels at a highly visible location



PURE TECH Energy-saving ventilation system making full use of the dynamics of nature



Outstanding insulation and airtightness High-performance insulation material, and multilayered insulating glass

### **Learning about Problems of Local Customers**

PanaHome participated in the International Greentech & Ecoproducts Exhibition & Conferences Malaysia (IGEM), the largest environmental exhibition in Southeast Asia, in 2011 and 2012, to pave the way for its business operations in Malaysia. Local consumers were interviewed on the problems and inconveniences they face in their lifestyles and in the houses they live in.

Various other field surveys were conducted to fully investigate the housing problems in Malaysia.



Panasonic booth at IGEM



PanaHome employee interviewing consumers



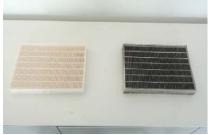
Promoting the performance of Japanese ecoconscious houses

In Malaysia, houses are usually made of bricks and hence take a long time to build. At the same time, insulation is poor, resulting in huge power consumption from air conditioning overuse. Health concerns were also mentioned, such as dust particles from forests and fields burned in neighboring countries and flow of exhaust and other pollutants from motor vehicles and factories. In view of such circumstances, the show house, built with construction methods cultivated in Japan over a span of fifty years, offers a range of environmental technology applications. These include exterior walls with

internal thermal insulation, insulation utilizing geothermal energy, insulation technology for walls and roofs, ventilation equipment for controlling polluted air, windows with multilayered insulating glass, and photocatalytic tiles, as well as solar panels for creating energy and home appliances with ECONAVI function for outstanding energy-saving performance.



A traditional brick house under construction



Ventilation equipment for pollution control Left: Filter before use Right: Filter after 6 months of use

President Toshiro Baba of PanaHome Malaysia Sdn Bhd, which manages the show house says, "We hope to solve the problems of our customers in Malaysia through home-building from the perspective upheld by our founder, Kounosuke Matsushita, of what represents a superior house for its dwellers."



Employees stationed at the show house (From left: Hisashi Matsumiya, Toshiro Baba, Kazutoshi Suzuki)

### **Business Expansion from Home-building to Town Development**

In addition to home-building in Malaysia, PanaHome is expanding its business into the development of Smart Cities. Based on its expertise accumulated in Japan with Fujisawa Sustainable Smart Town (Fujisawa City, Kanagawa Prefecture), Smart City Shioashiya (Ashiya City, Hyogo Prefecture), and Smart City Kusatsu (Kusatsu City, Shiga Prefecture)(see page 53), the company is planning a development project at an ocean-side resort named Kuantan, approx. 200 km from Kuala Lumpur. In cooperation with partner business enterprises, PanaHome is participating from the land development stage to home-building, aiming to create a town harmonized with the environment.

As in previous smart city projects, the company plans to install "cool tubes" utilizing geothermal energy, photocatalytic tiles, and energy-saving home appliances and equipment in each home in Kuantan, as well as photovoltaic power generation panels and LED street lamps in common spaces, from the aspects of eco-consciousness. For safety and security, security systems covering the entire town and gated community development are also being scheduled to ensure higher security.

PanaHome hopes to work on the continuing improvement of residential environment quality—from homebuilding to town development—based on its work in Malaysia, for consumers in various other Southeast Asian countries.



Kuantan development area



Residential environment harmonized with nature

# **Environment: Special Feature – Expansion of the Automotive Business**



**Automotive & Industrial Systems Company** 

# **Development of the 12V Energy Recovery System** with Ni-MH Battery for Automobiles

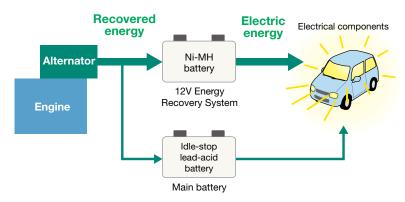
With a rising environmental consciousness, consumers are increasingly opting for eco cars such as hybrid electric vehicles (HEVs) as well as vehicles employing idle-stop systems in the pursuit of improved fuel economy. However, because idlestop systems depend on a single lead-acid battery to take care of all electrical needs of the vehicle, from restarting the engine to running the air-conditioner and other electrical components with the engine off, the battery is in frequent use. The 12V Energy Recovery System was developed for higher functionality of idle-stop systems, including better fuel economy and longer service life of the main lead-acid battery.

This system allows the energy generated during braking to be stored in the batteries and use the stored energy to power the vehicle's electrical components. Based on our unique technology accumulated in the development of batteries for HEVs, the new battery cells offer higher charging efficiency and durability under high temperatures. This increases flexibility in the installation of the system, as it can be placed in the engine compartment.

## Better Fuel Efficiency by Supplying Recovered Energy to Electrical Components

The 12V Energy Recovery System for idle-stop vehicles converts deceleration energy into electrical energy so that it is able to reduce the need of power generation by the gasoline engine. This system is designed to complement the performance of main lead-acid battery by supplying power to the vehicle's electrical components, thus increasing the functionality of idle-stop systems and improving fuel economy.

### Concept Diagram of the 12V Energy Recovery System



# Fits to Existing Systems without the Use of a Transformer **Installable in the Engine Compartment**

The 12V Energy Recovery System, which is designed to be connected in parallel with the main lead-acid battery, has the same 12V voltage as the main battery. Unlike some systems that require a transformer to regulate voltage, depending on the type of batteries used, our 12V system uses ten 1.2V Ni-MH battery cells, eliminating the need for voltage transformation. This helps lower the system costs and use energy more efficiently.



Ni-MH battery cell for automobiles

While the main lead-acid battery is often placed in the engine compartment, the temperature inside the engine compartment becomes high, requiring batteries to have strong durability. Using technology acquired in developing HEV batteries, we improved the battery design, such as the polar plates, electrolytic solution, and other battery parts, to increase charging efficiency and improve durability in high temperature environments. As a result, the cell's maximum charging/discharging temperature has significantly improved from 60°C to 75°C\*1 compared to existing cells. This enables installation in the engine compartment, and provides a high degree of design flexibility for the system's installation.

<sup>\*1</sup> From tests conducted by Panasonic on its existing products and the new cell.

# Contribution to Longer Life of the Main Lead-acid Battery

Idle-stop systems depend on the main battery to power the air-conditioner and other electrical components of the vehicle when the vehicle is in idle-stop mode with the engine off. The battery is in frequent use because the engine is repeatedly turned on and off. When the 12V Energy Recovery System is connected in parallel with the lead-acid battery, the current flows preferentially to the Ni-MH battery with a smaller battery resistance, lessening the load on the lead-acid battery.

Tests conducted by Panasonic, using a 12V Energy Recovery System together with a lead-acid battery, have confirmed that the service life of the main battery was extended by approximately six times\*2 compared to when a lead battery was used alone.

\*2 Results of charge/discharge life test for idle-stop (SBA S0101) conducted at 60°C aging conditions by Panasonic. Panasonic lead-acid battery (Q-55) and 12V Energy Recovery System were used.

## Launch of Vehicles with the System

Our 12V Energy Recovery System has been adopted in idle-stop vehicles by Nissan Motor Co., Ltd. and Mitsubishi Motors Corporation.

The models are the new-type mini vehicles, the Nissan DAYZ ROOX\*3 and Mitsubishi eK Space\*4 launched in February 2014, planned and developed by NMKV Co., Ltd., a joint venture by the two automakers. The system was specially customized based on the specifications of the vehicles.

- \*3 Excluding turbo-engine vehicles.
- \*4 Excluding eK Space Custom T.







Nissan DAYZ ROOX

Mitsubishi eK Space

12V Energy Recovery System (left) and Ni-MH battery cell for automobiles (right)

## Major features of the 12V Energy Recovery System

- 1. Improves fuel efficiency by supplying recovered energy to electrical components.
- 2. 12V design that fits to existing idle-stop systems without using a transformer. Adopts Ni-HM batteries with outstanding high-temperature performance.
- 3. Contributes to longer life of the main lead-acid battery.

Panasonic will continue to accelerate the development and commercialization of high-performance batteries and battery systems to expand its eco car battery business on a global scale, as well as expand the automotive business while accomplishing environmental contribution.

# **Environment: Eco-conscious Products and Factories**



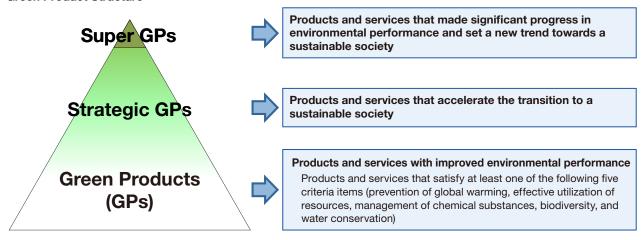
# **Initiatives for Eco-conscious Products (Green Products)**

Panasonic uses 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). At the same time, starting in fiscal 2014, the existing Superior GPs<sup>\*1</sup> has been enhanced to designate products and services that accelerate the transition to a sustainable society as Strategic GPs. Of these products, products that particularly create new consumer trends 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.

\*1 Products and services that showed superior environmental performance to products in the same category in the industry.

#### **Green Product Structure**



#### **Definition of Strategic GPs**

Products and services that accelerate the transition to a sustainable society:

- (1) Products and services that reduce environmental impact with top-level environmental performance in the industry
  - (Energy-/Resources-/Water-saving products, etc.)
- (2) Products and services whose promotion and dissemination lead to reducing environmental impact (Recyclable or energy-creating products, energy-storing products, energy management systems, Smart Houses and Smart Cities, products/services that support next-generation vehicles and environmental performances of stores, next-generation power meters, next-generation lighting equipment, etc.)
- (3) Products and services that reduce environmental impact on a specific region, or support measures to address environmental impact
  - (Air filtration devices, water filters, environmental engineering service, etc.)

## **Products Assessment System**



Product Environmental Assessment		
Items for assessment		Assessment criteria
(1) Products	Prevention of global warming	CO <sub>2</sub> emissions and energy saving
	Effective utilization of resources	Resource saving, light weight/downsizing, number of reused parts, durability, amount of recycled resources used, structure to recovery/recycling, etc.
	Water and biodiversity conservation	Water saving, consideration for biodiversity
	Comparison with competitors' products	
(2) Production process (of relevant products)	Prevention of global warming	CO <sub>2</sub> 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*2		Global warming
Information management		Green procurement, information provision across the supply chain, etc.

Laws/regulations and criteria, guidelines, and environmental action plan of Panasonic

<sup>\*2</sup> Life Cycle Assessment: Method of quantitatively assessing the environmental impact of products at each life cycle stage.

# **Expanding the Scope of Strategic GPs**

Panasonic has been devoting much of its energies into the creation of No. 1 eco-conscious products (Superior GPs) until fiscal 2013. In the course of business reorganizations such as expansion of BtoB businesses, Panasonic has decided not only to pursue environmental performance of consumer products but also to work on further expansion of products and services that lead to the mitigation of environmental impact. Starting in fiscal 2014, the concept of Strategic GPs has been introduced for the creation of such products and services. In addition to alleviating impact on the global environment with top-level environmental performance, we aim to accelerate the drive to shift to a sustainable society through a variety of business operations, including those that are expected to reduce impacts through wider dissemination and those directly cutting impact in specified regions. The ratio of Strategic GPs in fiscal 2014 sales had been approx. 22%. We will work to further push up this ratio in the future.

Of the Strategic GPs, the following three were named Super GPs for fiscal 2014–namely, CFC-free freezer system, for its environmental performance ranking at the top class in the industry, CASART ECO CORDIS, a detached house that is able to cut down environmental impact dramatically, and F-VXJ90C air purifier for China for its support in dealing with environmental impact in China.

The CFC-free freezer system succeeded in using CO<sub>2</sub>, which has a smaller impact on global warming and the ozone layer than CFC (see page 82). CASART ECO CORDIS has succeeded in creating a net-Zero Energy House (ZEH), which is expected to be promoted widely especially in Japan (see page 53).

The F-VXJ90C air purifier supports the comfort and security of everyday living in China where air pollution has become a serious social issue, by improving the indoor air quality. Specifically, the HEPA dust collector & filter is used to remove microparticles included in PM 2.5. At the same time, its ECONAVI function (see page 45) and other features have realized industry's top-class energy-saving performance. In the future, we plan to further offer air purifiers such as F-VXJ90C not only in China but also in other regions that require support and countermeasures for air pollution resulting from rapid economic growth.



Air purifier F-VXJ90C

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

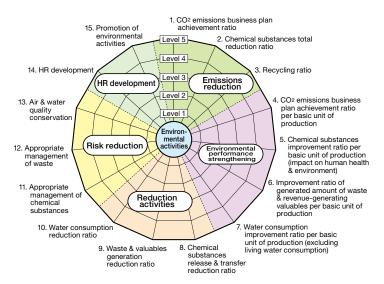
Panasonic is working on Green Factories (GF) activities in its efforts to cut down environmental impact in manufacturing at all of its factories worldwide while contributing to business management. Specifically, each factory develops a plan for environmental impact reduction in production activities, focusing on CO<sub>2</sub> emissions, total waste generation, water consumption, and chemical substance releases and transfers, and is engaged in its implementation, progress management, and improvement.

The GF assessment system was introduced in fiscal 2011 to further improve the standard of measures implemented across our factories. Under the system, the factories evaluate themselves on a one-to-five scale across 19 environmental activity items classified into six basic groups of emissions reduction, environmental performance enhancement, reduction activities, risk reduction, HR development, and management, and visualize the progress to address issues and make improvements. In fiscal 2014, the system was upgraded to enable each Company to assess itself from its own unique perspective, allowing the addition of items based on the Company's needs to the 19 GF assessment items. In addition, case studies on reductions implemented at factories are registered in the Before/After (BA) Chart Search System, which is updated for application in other factories. Presently, more than 2,300 cases are registered.

Other GF promotion activities include the establishment of sessions for information exchanges among factories within each country, extending beyond factory self-assessment, as well as human resource development and activities focused on their respective regional issues. Through the Manufacturing Environmental Information Sharing Group, information on global activities for environmental impact reduction, legislation, and social trends are shred, discussions are held to resolve issues in GF promotion. Outside Japan, information exchanges are being promoted within each country or region where Panasonic factories are located, such as in Europe, Southeast Asia, and China. Especially in Southeast Asia, where there are many Panasonic plants and diverse legislative frameworks and issues that vary by country, competitions of best practices for environmental impact reduction (presentation of awards to best practices and activities for horizontal promotion) for all factories in the region is held. In addition, information exchange within each country is being promoted to boost and accelerate actions in this direction.

Furthermore, in order to support these GF activities, respective Regional Headquarters, Company, and related functional divisions in each region are working on various human resource development programs every year in their respective regions. Training programs are being organized, including those on energy conservation, management of chemical substances, and waste management, which are in great demand in China and Southeast Asia where Panasonic has many sites. Special training programs on environmental laws and regulations are being held especially in China, to ensure compliance with the legislation being strengthened at great speed.

## Indicators for GF assessment system



## (Management)

- 16. CO2 emissions management/activity level
- 17. Chemical substances management level
- 18. Waste management level 19. Water management level.

#### **Essential items**

Continuous acquisition of ISO14001

Compliance with environmental legislation

Promotion of measures against soil and groundwater contamination

Monthly data registration

## **Advanced Examples of Eco-conscious Factories**

Kasugai Factory of Panasonic Ecology Systems Co., Ltd., integrated its production sites in April 2007 and renovated itself into an energy-saving plant. By (1) introducing insulation-oriented factory building, photovoltaic power generation, and air-conditioning system using ground heat; (2) developing improved coordination of power supply equipment and production processes through visualization of energy use; and (3) a resin forming process, forming of efficient cooling water pipes was enabled, which led to adopting a laser metal sintered mold that can dramatically reduce cooling time. As a result of these efforts, energy consumption was cut by 31% (2,550 kL in crude oil) from fiscal 2008 to 2013. Additionally, the energy conservation expertise within the factory has been showcased and shared in the eco Visualization Room. By making the showroom open to the public at large, it has stimulated greater eco-consciousness among the employees and contributed to the growth of energy-saving activities in society.

At the Kobe Plant of the Appliances Company, significant energy saving was realized through improvements in the assembly process for the top unit of an IH cooking heater. Specifically, adhesion of glass, stainless frame, and zinc-plated steel plates of the top unit conventionally required heating in a high-temperature furnace for curing after application of adhesive. However, development of room-temperature curing adhesives and improvements in various processes such as glass treatment before adhesion, have made assembly without the heating process possible. As a result, electric power consumption was cut by 96% (approx. 310,000 kWh/year) and CO<sub>2</sub> emissions reduced from 136 tons to 6 tons per year in the assembly process.

The achievements of these two factories were recognized, and were awarded the fiscal 2014 Energy Conservation Grand Prize for the Energy-saving Activities Category. Panasonic won two more awards in the Product and Business Model Category as well.

▶ Panasonic Wins Most Awards in Japan "2013 Energy Conservation Grand Prize" http://news.panasonic.net/archives/2014/0217\_25967.html

Outside Japan, Panasonic Manufacturing Philippines Corporation (PMPC) invited people from governmental organizations as well as local media to the startup of its new building for refrigerator manufacturing, which is oriented to eco-conscious manufacturing and production systems on September 27, 2013, and announced the 'eco ideas' Factory'<sup>3</sup> Declaration, becoming the 6th 'eco ideas' Factory in Southeast Asia. This factory focuses on eco-conscious manufacturing, working to reduce CO<sub>2</sub> emissions, waste output, consumption of hazardous materials, and water consumption by means of high energy-saving performance, a design free of hazardous substances, elimination of powder coating, and introduction of highly-efficient equipment in the new refrigerator production process. The factory is also active in local CSR activities centered on the environment, such as planting 1,000 trees and conducting environmental education for some 2,700 elementary school students in the community in fiscal 2014.

\*3 Eco-conscious model factory of Panasonic that contributes to the local community through comprehensive environmental sustainability management including manufacturing that reduces environmental impact, eco-awareness activities by employees, environmental education for children, etc.



Kasugai Factory, Panasonic Ecology Systems Co., Ltd.



IH cooking heater manufactured at Kobe Plant Appliances Company



Eco-conscious products displayed at PMPC

# **Environment: CO<sub>2</sub> Reduction**



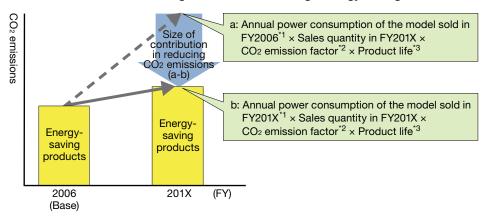
# Size of Contribution in Reducing CO<sub>2</sub> Emissions

One of the long-term environmental targets set by the international community is to reduce emissions of CO<sub>2</sub> and other GHGs by 50% 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 the improvements by the energy-saving performance of our products and productivity from fiscal 2006, and this amount is combined with the emission reduction resulting from power generation by energy-creating products. 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> emissions will further increase.

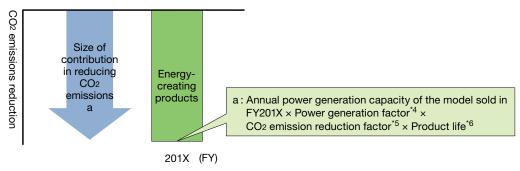
### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Energy-saving Products



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

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.

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



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

<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 and Northeast Asia); 0.332 (Latin America); and 0.599 (Middle East & Africa).

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

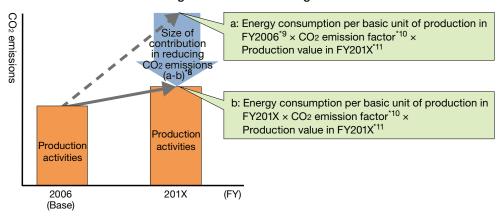
- \*5 For photovoltaic power generation: 0.3145 kg-CO<sub>2</sub>/kWh (considering energy used in the manufacturing process; by the Japan Photovoltaic Energy Association).
- \*6 For photovoltaic power generation: 20 years.

Note: From fiscal 2014, the calculation method for the size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products has been modified in accordance with the policy approach of Keidanren's Action Plan for Achieving a Low Carbon Society.

The smaller amount of CO<sub>2</sub> emissions per unit of production (tons/100 million yen),\*7 the more efficient productivity is, 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).

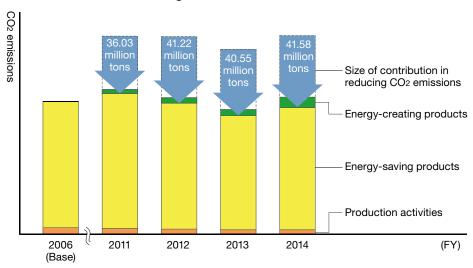
## Size of Contribution in Reducing CO<sub>2</sub> Emissions through Production Activities



- \*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.

In fiscal 2014, the size of contribution in reducing CO<sub>2</sub> emissions came to 41.58 million tons.

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



Note: From fiscal 2014, the calculation method for the size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products has been modified in accordance with the policy approach of Keidanren's Action Plan for Achieving a Low Carbon Society. Statistical figures for fiscal 2011 through fiscal 2013 have been recalculated accordingly. Size of contributions to reducing CO<sub>2</sub> emissions before recalculation was 35.18 million tons in fiscal 2011, 40.37 million tons in fiscal 2012, and 39.7 million tons in fiscal 2013.

# **Environment: Energy-saving/creating/storing Products**



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

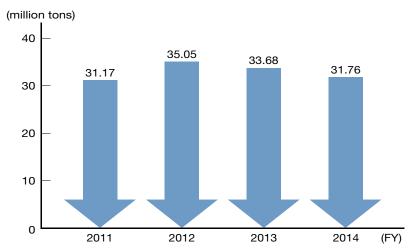
In fiscal 2014, the size of our contribution in reducing CO<sub>2</sub> emissions through energy-saving products stood at 31.76 million tons, mainly due to the drop in sales of consumer goods. In a breakdown of CO<sub>2</sub> emissions reductions by global product category, nearly 80% came from air conditioners, TVs and lighting equipment. By region, Japan, Asia Pacific, Middle East & Africa, and China & Northeast Asia made up over 70%. In addition, CO<sub>2</sub> emissions from the use of our major products in fiscal 2014 was estimated to be approx. 83 million tons.<sup>11</sup>

One leading energy-saving technology employed in Panasonic products is ECONAVI. The function enables automatic energy conservation with sensor technology etc., to detect wasteful power consumption in appliances. In 2009, we launched our home appliances with ECONAVI function, and now we offer 25 products with ECONAVI function across 92 countries in China, Southeast Asia, India, the Middle East, and Europe.

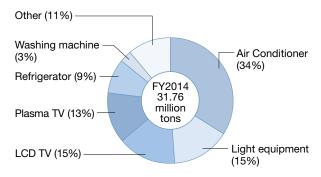
- \*1 Lifetime CO<sub>2</sub> emissions from major products<sup>\*2</sup> with large amounts of energy use.

  Lifetime CO<sub>2</sub> emissions = Annual power consumption of a model sold<sup>\*3</sup> x Sales quantity x product life<sup>\*4</sup> x CO<sub>2</sub> emission factor<sup>\*5</sup>
- \*2 Household air conditioners, commercial air conditioners, household fluorescent lamps, LED lamps, household refrigerators, commercial refrigerators, LCD TVs, plasma TVs, washing/drying machines, fully-automatic washing machines, clothes dryers, dish washer and dryers, IH cooking heaters, EcoCute, bathroom ventilator-driers, humidifiers, dehumidifiers, air purifiers, extractor fans, vending machines, electronic rice cookers, microwave ovens, warm-water washing toilets, clothing irons, hair dryers, under-rug heaters, vacuum cleaners, BD recorders, electric thermal pots, extractor hoods, 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 and Northeast Asia); 0.332 (Latin America); and 0.599 (Middle East & Africa).

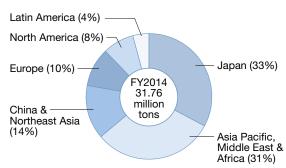
#### Size of Contribution in Reducing CO<sub>2</sub> Emissions through Energy-saving Products



# 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)



## **Tilted-drum Washing Machine/Dryer**

With a more efficient heat pump, wider hose diameter, and larger dryer filter area, model NA-VX9300L/R for the Japanese market reduces energy consumption during drying by approx. 8.3% compared to the FY2013 model NA-VX8200, and achieves 600 Wh<sup>-6</sup> in energy consumption for one washing and drying cycle for 6 kg of laundry. Additionally, the ECONAVI function enables automatic energy and water conservation by detecting the level of dirtiness, laundry load, and quality. Electric power consumption is reduced by up to approx. 8.5% for 10 kg of laundry.<sup>7</sup>

In recognition of the excellence of these features, the model received the Chairman Prize in the 2013 Energy Conservation Grand Prize organized by the Energy Conservation Center of Japan.

- \*6 For "Normal Course & Standard Drying" with water temperature at 20°C and air temperature at 20°C. Based on Drying Performance Assessment Method (revised November 19, 2009), the standard of the Japan Electric Manufacturers' Association (JEMA).
- \*7 For "Normal Course" using synthetic powder detergent.

  Differs from electric power consumption based on Washing Performance
  Assessment Method, the standard of the Japan Electric Manufacturers'
  Association (JEMA).

# Refrigerator

Model NR-F605 for Singapore has achieved approx. 19% reduction in annual power consumption, or 522 kWh<sup>\*8</sup>, compared with the FY2010 model NR-F603, with the introduction of inverter-control compressor, LED lights for refrigerator interior, vacuum insulation panels, etc. Additionally, further energy saving is possible with the ECONAVI function, with which the refrigerator learns the lifestyle pattern of the user, switching to slow operation mode during the times of the day when use is infrequent, such as while sleeping or away from home.

The model received "4 ticks," the highest rating in the energy labeling program of Singapore's National Environment Agency."9

- \*8 Based on ISO 15502.
- \*9 Based on energy-saving standards in Singapore, Energy Conservation (Energy Labeling and Minimum Performance Standards for Registrable Goods).

# **Air-conditioning Units**

Model CS-K18NKS for Saudi Arabia is equipped with an inverter compressor capable of stable operation even in high temperatures of 55°C. Compared to the FY2013 non-inverter model CS-PC18MKS, annual power consumption has been reduced by approx. 30%. Furthermore, it has the ECONAVI function, which controls and adjusts the operation power automatically by detecting human presence and level of activity for further energy conservation.

# **ECONAVI**



Tilted-drum washing machine/dryer NA-VX9300L/R



Energy Conservation Grand Prize





Refrigerator NR-F605





Air-conditioning unit CS-K18NKS

## **LCD TV VIERA**

The Japanese market model TH-L55DT60 has achieved the industry's highest\*10 annual power consumption of 95 kWh, with development of fine backlight control technology and highefficiency power circuits. Furthermore, the ECONAVI function controls the TV set and peripheral devices automatically according to the viewing environment, enabling further energy conservation.

As a product excelling not only in energy-saving performance but also in conservation of resources and recycling, 20 models including TH-L55DT60 became the first TV sets in the industry\*11 to acquire the Eco Mark label. It has also received the Silver Prize in the Eco Mark Awards 2013 organized by the Japan Environment Association.

\*10 As of March 6, 2014, for V-type digital high-definition TV equipped with digital-terrestrial and BS/CS satellite broadcast receiver marketed for Japan's domestic consumer market (surveyed by Panasonic).

\*11 As of April 22, 2013, for plasma & LCD TV sets.

## iD Series Integrated LED Base Light System

The "iD Series" integrated LED base light system is a series of lighting equipment that can be used in offices and conference rooms among other various spaces. Its outstanding energy-saving performance was recognized with the Minister of the Environment Prize at the 62nd Electrical Construction Equipment and Materials Fair, JECA Fair 2013, organized by the Japan Electrical Construction Association.

Furthermore, the XLE953SFV LE9 model launched in February 2014 (direct-mount; energy-saving 40-type; 5200 lm type; natural light color) has achieved 160.4 lm/W in luminous efficacy as well as an energy consumption of 31.8 W<sup>-12</sup> which is the top level in the industry, by further improving power efficiency, optimizing the LED package, and introducing wider light dispersion panels. Compared to our existing florescent light, FSA42001F VPN9, it saves approx. 52% energy with the same luminance level.

\*12 Based on Guide A 134 *Guidelines on Labeling related to LED Luminaire*\*\*Performance of the Japan Lighting Manufacturers Association.



LCD TV VIERA TH-L55DT60



"iD Series" integrated LED base light system



JECA Fair 2013 product competition Minister of the Environment Prize

# **Lining Insulation Panels for Easy Home Renovation**

Renovating the home for better heat insulation not only lowers the room temperature and enhances comfort but also saves energy by reducing the load on air-conditioning systems. Our proposals of insulation panels can be installed simply by lining existing floors, walls, and ceiling with the panels. In contrast to a conventional insulation method where walls are opened and filled with insulation material inside, these panels do not require large-scale work and reduces the time necessary for installation. In addition, the insulation panels use vacuum insulation material used in refrigerators and other devices, achieving an insulation capability equal to a 200-mm-thick conventional glass wool insulation just with a thickness of 8 mm. The total thickness of the panel is reduced to 13 mm, minimizing the reduction in room size after renovation.



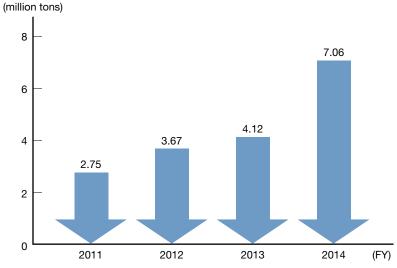
Insulation panel lining for walls

# 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 our contribution in reducing CO<sub>2</sub> emissions through energy-creating products in fiscal 2014 grew to 7.06 million tons, thanks to robust sales of photovoltaic power generation systems in Japan. By region, Japan accounts for the vast majority of the sales.

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



Note: In fiscal 2014, the calculation method for the size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products was modified in accordance with the policy approach of Keidanren's Action Plan for Achieving a Low Carbon Society. Statistical figures for fiscal 2011 through fiscal 2013 have been recalculated accordingly. The size of contribution in reducing CO<sub>2</sub> emissions through energy-creating products before recalculation was 1.9 million tons in fiscal 2011, 2.82 million tons in fiscal 2012, and 3.27 million tons in fiscal 2013.

## **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.

Our solar module HIT<sup>TM\*13</sup> used in this photovoltaic power generation system has the industry's top-level real power output,\*14 owing to its outstanding power generation efficiency and resistance to heat.



HIT™ delivered to the new offices of the German Federal Environment Agency

Our HIT™ were delivered to the new offices of the German Federal Environment

Agency which opened on August 30, 2013. The new office building is built in
accordance with Article 9 of the EU Directive on the Energy Performance of Buildings, which stipulates that buildings
owned by public organizations and agencies must become nearly-zero energy buildings (buildings that hardly consume any
energy) by 2019. Due to the rigorous requirement to generate more than about 46,000 kWh annually with solar modules
with the limited rooftop space, the high-efficiency, high-quality HIT™ was chosen. The 281 HIT™ installed on the rooftop
provide a total capacity of 70 kW.

## **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 town 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 the end of March 2014, we shipped a total of approx. 38,000 units.

Additionally, in cooperation with Tokyo Gas Co., Ltd., Panasonic developed the ENE-FARM home fuel cell for apartments in fiscal 2014, in the drive to promote wider dissemination in urban areas. The product was designed for apartment buildings that have stricter installation requirements compared to detached houses. Installation into the pipe shaft on the open corridor side\*15 was made possible by



Image of a fuel cell installed inside an apartment building

increasing the airtightness of the unit itself. Also, seismic resistance was improved by reinforcing the legs that anchor the unit to comply with apartment installation standards. At the same time, wind resistance for operation even in strong wind conditions was improved with changes in the exhaust structure, enabling installation on upper floors of the building.

Compared to hot water supply through electric power from thermal power stations and a town-gas water heater,\*16 this system reduces CO<sub>2</sub> emissions by roughly 49% and primary energy consumption by approx. 37% when operating at a rated power generation level.\*17 Annual electric power and heating expenses in a model case can be reduced by roughly 30,000 to 40,000 yen, and annual CO<sub>2</sub> emissions can be cut down by roughly 1 ton.\*18 The effort extends beyond Japan, with the joint development of a household fuel cell cogeneration system for the European market with Viessman Group and its launch in Germany in April 2014. This will be the first commercial launch in Europe for a household fuel cell system employing polymer electrolyte fuel cells (PEFC).

<sup>\*13 &</sup>quot;HIT" is a registered trademark of the Panasonic Group.

<sup>\*14</sup> Annual power generation per kW of photovoltaic power generation system capacity; HIT™ 233/240/240α/245α & solar inverter VBPC255A4 at 96% (330V): 1,188 kWh (in the case of Osaka City) as of June 2013, based on the "annual power generation calculating formula" set by the Japan Photovoltaic Energy Association in the domestic residential photovoltaic power generation system industry; in-house research.

<sup>\*15</sup> Open corridor refers to passageways in apartment buildings, etc. where residential units are situated on one side of the building and corridors facing the outside of the building are situated on the other side.

<sup>\*16</sup> Supply system in which power comes from a thermal power plant and heat from town gas.

<sup>\*17</sup> Comparison with the system where power output at rated operation (0.75 kWh) and thermal recovery volume (1.08 kWh/approx. 37 L at 40°C) are supplied through electricity from existing thermal power plants and hot water from town gas water heaters.

<sup>\*18 [</sup>Criteria for estimation]

- (1) Primary energy conversion factors: Electric power at 9.76 MJ/KWh (Act on the Rational Use of Energy); gas at 45 MJ/m³ (Tokyo Gas data); hot water supply efficiency at 80%.
- (2) CO<sub>2</sub> emission coefficients: 0.69 kg-CO<sub>2</sub>/kWh for electric power (Interim Report of the Goal Achievement Scenario Subcommittee of the Global Environment Committee, Central Environment Council, July 2001); 2.29 kg-CO<sub>2</sub>/m³ (Tokyo Gas data).
- (3) Annual load: 13.01 GJ for hot water; 1.45 GJ for bath temperature maintenance; 1.8 GJ for cooking; 4.15 GJ for air cooling; 7.75 GJ for floor heating system; 2.77 GJ for air-conditioning unit heating; 11.41 GJ for lighting, etc. (for a family of 3 members in an apartment with a total floor area of 80 m²).
- (4) Electric power demand: 3,643 kWh consumption for a residential unit using both gas and electricity (surveyed by Tokyo Gas).
- (5) Gas prices: Dan-ran Plan as the conventional system and ENE-FARM Power Generation Eco Plan for ENE-FARM. Electricity prices: Meterlighting B plan and 40-ampere supply contract for both conventional system and ENE-FARM. Gas and electricity prices: Estimation based on adjusted unit price as of January 2013 in the Tokyo area.

# **Initiatives for Energy-storing Products**

Energy-storing products such as lithium-ion batteries can be used in various situations for electric power storage and contribute to CO<sub>2</sub> reduction through installation in offices, homes, electric vehicles (EVs), etc. Panasonic is actively engaged in the development of energy-storing products.

## **Lithium-ion Storage Battery System**

An energy-storing system is a device for supplying stored energy when necessary, and plays an important role in ensuring stable use of power generated with recyclable energies such as photovoltaic power generation systems. In recent years, energy-storing systems have been in great demand with the rise in awareness toward energy conservation as well as in Business Continuity Planning (BCP) activities. However, installation of these systems has faced issues such as pricing, capacity, and installation space.

The LJ-SF50A, a lithium-ion storage battery system for industrial and residential use (storage capacity of 5 kWh; stand-alone type) for which order acceptance started in December 20, 2013, is equipped with large-capacity lithium-ion cells with double the energy density of existing systems, \*19 realizing larger capacity, smaller size, and lighter weight for a price of

under one million yen. It is a stand-alone system where power can be directly supplied from the outlet. Its slim design allows installation beside an office desk or under a POS register, expanding the possibility of installation in business offices, apartment building management offices, shops, medical clinics, and residential homes. Also, its large-capacity 5-kWh design provides for prolonged simultaneous operation of multiple devices such as PCs, refrigerators, "20 TV sets, etc. Furthermore, it has high output of 1.5 kVA, allowing connection to high-power appliances such as multifunction machines and table-top electromagnetic cooking devices." Not only is it capable



LJ-SF50A lithium-ion storage battery system for industrial & residential use





Uses of LJ-SF50A industrial/residential lithium-ion storage battery system (Left: Medical clinic; Right: Refrigerator)

of connecting to a variety of appliances and devices and of long-term use by multiple devices during a blackout, it can store electric power during late-night hours and use the stored electricity during the day, cutting down power purchase during peak periods.

Moreover, Panasonic pioneered <sup>22</sup> the development of a wall-hanging type lithium-ion storage battery panel (storage capacity of 1 kWh) that can be installed in small space such as detached houses, apartment units, and small stores. Order acceptance started in February 28, 2014, aiming for further and wider use of storage battery systems that realize both safety and security in everyday living combined with a reducing environmental impact.

- \*19 Comparison with lithium-ion batteries used in existing Panasonic systems (1.6 kWh/3.2 kWh types).
- \*20 May not be used for products that require large startup current, or certain models, depending on type.
- \*21 May not be suitable for high-powered, large-motor devices.
- \*22 For energy-storing systems with a storage capacity of 1 kWh. As of February 2014 (surveyed by Panasonic).

## **Batteries for EV**

Spurred by rising awareness of protecting the global environment such as preventing air pollution, Panasonic is strengthening development and commercialization of rechargeable batteries for ecocars, the demand for which is expected to grow rapidly in the future. Panasonic has been supplying lithium-ion cells for Tesla models, starting with the luxury Roadster sports car and currently for the luxury sedan EV, Model S. Joint development with Tesla Motors is also presently underway for next-generation EV lithium-ion battery cells.

The cells used for Model S have been designed optimally for the quality and life required for EV applications, based on industry's top-level '23 energy density and performance realized with our original technologies. These cells are finished as battery packs at Tesla Motors, contributing to the achievement of overwhelming cruising distance of 500 km '24 by Model S.



Panasonic lithium-ion battery cell for EVs

\*23 For 18650-size cylindrical lithium-ion battery cells. As of June 2013 (surveyed by Panasonic). \*24 With Tesla Motors 85 kWh battery.

# **Environment: Energy Solutions**



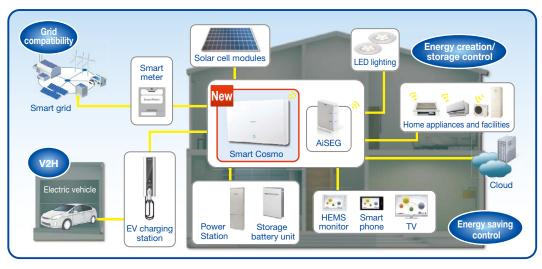
# For a Zero-energy and Zero-CO<sub>2</sub> Life

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 "saving energy," "creating energy," "storing energy," and "managing energy." First, we reduce energy consumption of the whole house by increasing the energy efficiency through reduction of power consumption of appliances during use and higher insulation efficiency of the house itself. Energy yet necessary even after saving is covered by combining energy created by photovoltaic power generation and fuel cells with energy stored by household lithium-ion accumulator batteries. Through an energy management system which links appliances and equipment that controls energy overall, we can have virtually zero CO<sub>2</sub> emissions.

To date, we have developed a range of energy management products and introduced them to the market. These products include the Energy Creation-storage Linked System, which enables smart utilization of electricity by linking a photovoltaic power generator with storage batteries, and Smart HEMS—a Home Energy Management System. Smart HEMS has been particularly praised for its capability to visualize electricity usage through a monitor as well as its automatic control functions over electric appliances to save energy. Smart HEMS bundled with AiSEG (MKN7321HE and MKN7322HE) released on October 21, 2012, achieved more than 40,000 sales in total in fiscal 2014.

Further, in order to increase the penetration of HEMS in the market towards the realization of a smart grid society, we developed Smart Cosmo, a power distribution board that plays a central role in power distribution and information management in the home and is capable of supporting various functions for future scalability. This new product became available from May 21, 2014. In addition to visualizing energy usage in the home including electricity, gas, and water, Smart Cosmo offers a safe and comfortable lifestyle for users through new services, such as life support or encouraging energy saving, created by utilizing energy data measured in the home. Because Smart Cosmo is designed to fit with various changes in the environment and services in the future smart grid society, it not only supports installation of photovoltaic power generation systems, household fuel cell cogeneration systems, and our Energy Creation-storage Linked System at the time of house construction, it also allows adding equipment in later years simply by installing necessary measurement devices in the distribution board, reducing required work and space. Further, Smart Cosmo will also be compatible with demand response control as well as adjustments for cutting or shifting the peak demand considered for introduction by power companies, by linking to a smart meter. This will enable contributing to a stable electricity demand/supply balance and prevention of large-scale blackouts.

## Conceptual Diagram of Smart Cosmo Usage



We also introduced CASART ECO CORDIS, a net-Zero Energy House (ZEH), to the market in fiscal 2014. The house is equipped with a Full-PV Roof, born from pursuing the functionality that makes the best of naturally-available energy and advanced design. The entire roof is composed of solar cell panels that can generate more than 10 kW of power. The house also utilizes geothermal heat, which is cooler than the external air in the summer and warmer during the winter, in combination with improved heat insulation in order to reduce the energy load for air conditioning. The hybrid ventilation system with ECONAVI installed in the house takes in the clean air under the floor and automatically controls the interior



Appearance of CASART ECO CORDIS

air flow. The entire energy saving performance of the house was also improved by carefully designing the house layout with large eaves that give less heat loss, and wide opening windows that maximize the natural light and breeze. Net-zero energy consumption is enabled by a building design that reduces energy usage and a roof that creates energy. The house also brings financial benefits by enabling the residents to sell excess energy to power companies. It is possible to make around 10 million yen-worth income over 20 years, depending on conditions, utilizing the Feed-in Tariff Scheme for Renewable Energy. This house realizes a lifestyle that is beneficial to the earth and to people's finances.

## For a Sustainable Town

In PanaHome Smart City Shioashiya (also named Sorashima) in Ashiya, Hyogo Prefecture, Japan, with a total of 500 households including both houses and apartments, Panasonic realizes Japan's first' net-zero energy town. This will be achieved by smart houses that have a high self-sufficiency rate of energy through a variety of advanced facilities, including a photovoltaic power generation system and the Panasonic Energy Creation-storage Linked System, as well as excellent insulation performance owing to its efficient building structure. Another contributor to the net-zero energy town is ParkNade Shioashiya, an apartment block where each of the 83 households are fully equipped with a solar generation system and a household fuel cell ENE-FARM—a first in Japan. '2



Smart Apartment, ParkNade Shioashiya

Sales of the houses commenced in July 2012, and the apartments were made available from September 2013.

Panahome Smart City Kusatsu is another net-zero energy town, located in Kusatsu City, Shiga Prefecture. All 87 houses are smart houses, CASART ECO CORDIS, equipped with high-capacity photovoltaic power generation systems and enabling the town to be self-sufficient in energy. The sales of the first block started on September 14, 2013.

Panasonic also promotes the Fujisawa Sustainable Smart Town (Fujisawa SST). Fujisawa SST is a large-scale development project being built on our previous factory site located in Fujisawa City, Kanagawa Prefecture. The premises, with an area of approximately 19 ha, include some 1,000 dwellings, commercial properties, and healthcare, welfare, and educational facilities. The town is expected to be completed in fiscal 2019. To lead the sustainable development of the town, a town management company, Fujisawa SST Management Company, was established. The company maintains the town together with a Next-generation Autonomous Organization, the Fujisawa SST Committee. Each of the detached houses built in the first block is equipped with the Energy Creation-storage Linked System and this was the first case in Japan for a largescale development project. The system not only realizes zero CO2 emissions in these houses but enables power supply in the event of power cut. In order to realize an eco-conscious, comfortable, safe, and secure life, the town has set its environmental targets as follows: (1) Reduction of CO<sub>2</sub> emissions by 70% (compared to 1990); (2) Reduction of water usage by 30% (compared to 2006); (3) Renewable energy usage rate of at least 30%; and (4) Ensuring a 3-day lifeline. In September 2013, Fujisawa SST was certified as a Housing/ Buildings CO<sub>2</sub> Reduction Leading Project, subsidized by the Ministry of Land,



Bird's eye view of Fujisawa SST



Detached houses in Fujisawa SST available for

Infrastructure, Transport and Tourism, and also as a CO<sub>2</sub> Emissions Reduction Project to Increase the Low-Carbon Value by the Ministry of the Environment in December 2013. The sales of the first block of detached houses commenced on February 15, 2014.

In China, we are participating in the town planning of the Dalian BEST-CITY. Based on an effective energy-saving approach, we designed interior and living spaces for apartments, and proposed a range of energy-saving products, including kitchen equipment, air conditioners, ventilation systems, and flat-screen TVs. Through networking the appliances together, we also implemented energy visualization in conjunction with use of HEMS. Further, we have developed technology that incorporates visualization of air quality into HEMS. Air quality is assessed by temperature-humidity sensors and CO<sub>2</sub> sensors installed in major rooms. Based on the measured humidity and CO<sub>2</sub> amount, the equipment automatically starts humidity control or suggests ventilation.

In Singapore in January 2013, we began participating in a year-long field-trial project of total energy solutions. The project took place in public housing apartments in Punggol under a partnership with local government agencies. The trial resulted in the achievement of at least 20% energy saving on average across 10 households who took part in the project by using a Panasonic air conditioner with the ECONAVI (see page 45) function and HEMS. Further, our HIT™ photovoltaic generation system (40 kWp) installed on the building's roof supplied power for lighting in common areas and elevators, reducing the electricity consumption of the entire building. This realized near zero energy for the common areas. The trial also proved that the Panasonic lithium-ion storage battery system can operate the elevators during a power cut. We will continue our collaboration with governmental agencies for business expansion of these solutions.

<sup>\*1</sup> As of August 2013. As a large-scale housing estate with more than 400 households in total including both detached houses and apartment blocks (surveyed by Panasonic).

<sup>\*2</sup> As of August 2013. As an apartment block with more than 80 households (surveyed by Panasonic).

# **Environment: Global Warming Prevention at Factories and Offices**



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

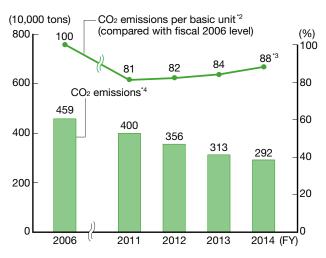
Panasonic is working to reduce CO<sub>2</sub> emissions in factories with the aim of contributing to global warming prevention as well as improving production efficiency in factories and reducing energy costs.

In fiscal 2008, we set a company-wide business goal to reduce CO<sub>2</sub> emissions by 0.3 million tons in fiscal 2010 compared to fiscal 2007. As a result of our unified efforts, we achieved 0.84 million tons in CO2 emissions reduction, surpassing our target figure. Since fiscal 2011, we have been using our unique indicator, the size of contribution in reducing CO<sub>2</sub> emissions (see pages 43-44), to further improve our energy management capabilities and reduce the CO<sub>2</sub> emissions per basic unit, aiming towards maximizing the size of contribution in reducing CO<sub>2</sub> emissions in production activities. In addition to individual efforts implemented in each factory, energy-saving and CO2 emission reduction measures including horizontal introduction of good examples across the company, specialist training, and CO2 ITAKONA initiatives\*1 are promoted. The size of contribution in reducing CO<sub>2</sub> emissions in production activities achieved in fiscal 2014 was 2.76 million tons (compared with the fiscal 2006 level). The CO<sub>2</sub> emissions per basic unit in fiscal 2014 decreased from the previous fiscal year due to reduced production influenced by structural reforms.

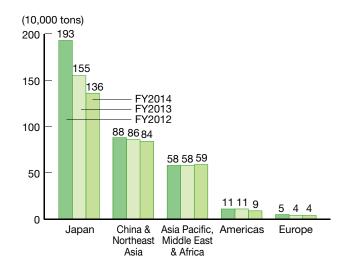
We also take part in the Keidanren's Commitment to a Low Carbon Society, a voluntary action plan for global warming prevention targeted at 2020. Specifically, we commit to achieving the goals set by the electrical and electronics industry in Japan that aims "improvement in energy consumption rate in factories and large offices at an annual rate of 1% on average towards 2020." We ensure that we will achieve this goal by steadily continuing energy-saving activities and CO2 emissions reduction in factories and offices, as well as enhancing our range of low-carbon products and services, and contribute to reducing CO<sub>2</sub> emissions in the entire society.

\*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 CO2 emissions reduction efforts and call these our CO2 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.

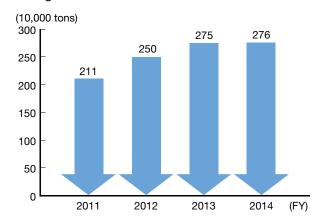
## CO<sub>2</sub> Emissions in Production Activities and CO<sub>2</sub> Emissions Per Basic Unit



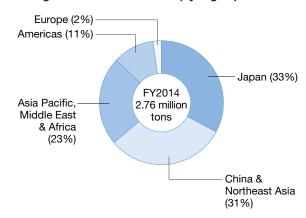
## CO<sub>2</sub> Emissions in Production Activities (by region)



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



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



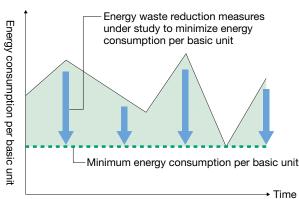
- \*2 Calculated with the weighted average of the improvement rate for CO<sub>2</sub> emissions per basic unit of nominal production for each factory. The amount of CO<sub>2</sub> emitted from each factory was used for weighting cases that had no improvements. Basic unit of fiscal 2006 was converted into an index as 100.
- \*3 Increase in CO<sub>2</sub> emissions per basic unit in fiscal 2012, 2013, and 2014 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, 0.350 for fiscal 2011, 0.476 for fiscal 2012, and 0.487 for fiscal 2013 and 2014), total CO<sub>2</sub> emissions will be 4.63 million tons for fiscal 2006, 3.74 million tons for fiscal 2011, 3.81 million tons for fiscal 2012, 3.35 million tons for fiscal 2013, and 3.12 million tons for fiscal 2014. 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.

## 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 \*5 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

## Concept of the CO2 ITAKONA Initiative



display of energy consumption per basic unit of production, and analyzing the factors that influence the variables in each basic unit.

In order to accelerate action under the CO<sub>2</sub> ITAKONA initiative, we developed the SE-Navi software that displays energy and production data simultaneously and analyze energy consumption per basic unit. In fiscal 2014, we enhanced the "energy-saving navigation function" to enable quantitatively extracting energy loss per device as well as energy loss per factor based on the automatic energy loss analysis results through CO<sub>2</sub> ITAKONA analysis. With this function, energy-saving efforts prioritizing processes with large energy loss have been made easier. This function will become commercially available in the public market in 2014 (see page 59).

Conventionally, energy consumption and other data had been analyzed manually by specialists in order to develop energy conservation measures. This function automatically analyzes data and enables users to consider energy conservation measures based on the energy-saving measure database. Not only did this contribute to a reduction in working time but also to the identification of energy-saving measures without the assistance of specialists In fiscal 2014 we expanded the energy-saving navigation function to our sites outside Japan. The employees at a refrigerator factory in Wuxi, China, actively implemented energy-saving activities utilizing this function mainly in processes with large energy consumption such as the sheet extrusion process, resulting in an improvement by 5% in specific energy consumption / energy volume per basic unit.

We will disseminate the usage of the above-mentioned functions of determining energy loss per device or factor into frontline workplaces and further promote efficient energy-saving activities and enhance the effects.

\*5 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.

# **Utilization of Renewable Energy**

As countermeasures against global warming, we globally promote utilization of renewable energy, such as photovoltaic power generation. Kasai Green Energy Park, a manufacturing plant for batteries for eco-cars, has installed a one-megawatt Mega Solar System, including bifacial photovoltaic module mounted on the wall of the building. Panasonic Technopark in India, a manufacturing site for air conditioners and washing machines, is also equipped with a photovoltaic power generation system installed on the roofs of offices, the entrance, and parking lot, totaling to 28.29 kW. The annual amount of power generated from reusable energy in fiscal 2014 reached 3.65 million kWh\*6 across Panasonic.\*7



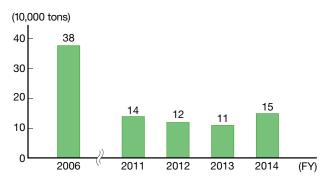
Bifacial photovoltaic module HIT™ Double installed in Kasai Green Energy Park

# 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 emissions of these gases, our semiconductor factories implement 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. GHG emissions other than CO<sub>2</sub> from energy use in fiscal 2014 amounted to 0.15 million tons (CO<sub>2</sub> equivalent), an increase of 0.04 million tons from the previous fiscal year. With nitrogen trifluoride (NF<sub>3</sub>) being newly added to the fiscal 2014 measurements due to

Emissions (CO<sub>2</sub>-equivalent) of GHGs Other than CO<sub>2</sub> from Energy Use in Production Activities



the new GHG coverage in the second commitment period of the Kyoto Protocol, the Global Warming Potential (GWP) was reviewed, resulting in the increase of 0.04 million tons.

# Breakdown of Total GHG Emissions (by gas and by scope)

Our GHG emissions, including emissions from energy sources and other sources, reached 3.08 million tons in fiscal 2014, the breakdown being 20% for Scope 1 emissions \*7 and 80% for Scope 2 emissions \*7 (see page 111 for Scope 3 emissions).

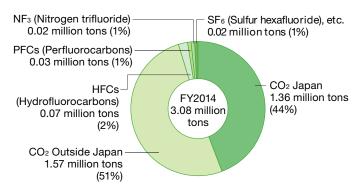
\*7 GHG emissions defined by the GHG Protocol, an international calculation standard for GHG emissions. Scope 1 emissions refer to all direct GHG emissions from facilities that are owned or controlled by the reporting entity (e.g. emissions from usage of town gas or heavy oil). Scope 2 emissions refer to GHG emissions from manufacturing of the energy that is consumed in facilities owned or controlled by the reporting entity (e.g. emissions from generation of electricity that the reporting entity purchased).

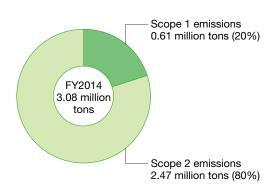
<sup>\*6</sup> Includes photovoltaic and biomass power but not power from heat pumps.

<sup>\*7</sup> Includes power generated from renewable energy at non-production sites.

# 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)



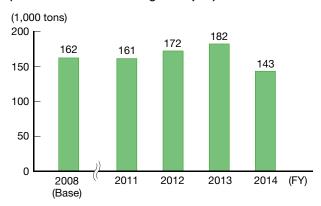


# CO<sub>2</sub> Emission Reduction at Non-manufacturing Sites

We also focus on measures aimed at curtailing emissions at nonmanufacturing sites, including offices and research centers. 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 63 self-owned office buildings in Japan. To meet this goal, major sites have formulated energy conservation plans and taken steps such as conducting energy conservation diagnoses by specialists. As a result, we have reached our goal for fiscal 2014, reducing our CO2 emissions to approx. 143,000 tons, marking an annual average reduction of about 6% \*8 compared with the fiscal 2008 baseline level. From fiscal 2011, we started to check on a monthly basis the progress of all 105 sites including 42 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. We also implement initiatives in utilizing renewable energy, such as installing solar panels on the roofs of offices and research buildings.

\*8 Figure representing CO<sub>2</sub> emissions for the base year (fiscal 2008; 206,000 tons) is one wherein the figure of past fiscal years were corrected based on the sites covered in fiscal 2014.

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



Note: The sites covered by this information are non-manufacturing sites (owned by Panasonic) with 100 or more employees in each fiscal year. Until the last fiscal year, the figures of past fiscal years were corrected based on the sites that became subject of the calculation according to the most recent fiscal year's conditions. Therefore the figures in this fiscal year are different from the previous year. For the CO<sub>2</sub> emission factor, 0.410kg-CO<sub>2</sub>/kWh was used.

# **Environment: Business of Factory Energy Conservation Support Service**

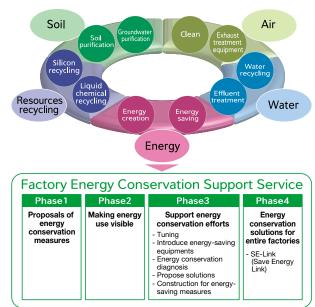


# **Environmental Support for the Entire Factory**

Panasonic launched its Factory Energy Conservation Support Service in April 2010, based on its success in reducing CO<sub>2</sub> emissions in production activities in the three years of fiscal 2008-2010. This service provides all-round support in energy-saving activities at factories, from visualization of energy use and energy conservation diagnoses to execution of concrete energy-saving measures, comprehensively covering the aspects of technology, equipment, human resources, and finance.

As part of this service, 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, and 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 longterm efficiency fluctuations for equipment, including

Image of our Total Environmental Package Solutions for the Entire Factory



compressors, boilers, and freezers, to identify equipment deterioration and necessary maintenance—all of which serve to reduce wasted energy consumption. Furthermore, in fiscal 2014, the output unit automatically calculated 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 automatically identifies the source of energy loss. With such losses expressed in numerical terms, the points requiring energy conservation can be easily identified. This function was launched in June 2014.

We have created a packaged service of technologies, knowledge, and experience related to the environment cultivated within our Group in the form of Total Environmental Package Solutions for Entire Factories. This offers a total solution, covering not only energy conservation but also environmental and energy technologies in effluent treatment and water recycling, exhaust treatment, resources recycling, soil and groundwater purification, and photovoltaic power generation, contributing to the comprehensive environmental actions being undertaken by enterprises outside Panasonic.

## **Energy conservation support for TDK Ugo Corporation**

Panasonic has been providing continuous support to TDK Ugo Corporation for its factory energy-saving activities since fiscal 2012, catering to the company's request for uninterrupted energy conservation while maintaining stable operations. At their Ouchi Plant, where we first started the service, we conducted an energy conservation diagnosis, and proposed improvement in operation including optimization of settings (tuning) as well as energy-saving measures such as use of inverters. In the tuning activity for the clean room conducted at first, the temperature and ventilation frequency were optimized (tuned) within the range allowing to maintain a level of cleanliness that would not impact production, while constantly checking the atmospheric environment with temperature/humidity meters installed inside the clean room. This led to an



Energy-saving tuning of TDK Ugo Corporation equipment

approx. 3% reduction in electric power consumption across the entire factory in fiscal 2012, without additional facility investment. For energy-saving measures that require capital spending, such as air conditioning system updates and use of pump inverters, we proposed a solution combined with tuning so as to achieve higher investment efficiency. In the future, we will provide comprehensive support to the company's energy-saving activities, including specific measures for production facilities.

## **Customer comment (TDK Ugo Corporation)**

As the cutting edge energy-saving factory representing TDK Ugo Corporation, the Ouchi Plant has been working on greater energy visibility and other energy conservation measures from the design stage. With demand to save electricity after the great earthquake disaster, however, even greater conservation became essential. For this reason, we decided to collaborate with outside experts to work on electric power reduction efforts, even reaching into production conditions of our products. In particular, Panasonic offered a practical approach of gradually changing the manufacturing environment without stopping the 24/7 plant operation. This led to concerted action by the plant, the Safety and Environment Office at the TDK Head Office, and Panasonic, which enabled implementation of energy conservation with confidence.

# **Environment: Green Logistics**

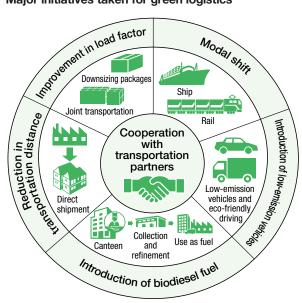


# Reducing CO<sub>2</sub> Emissions in Logistics

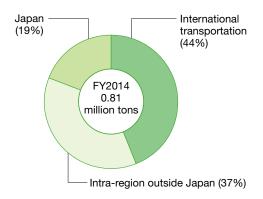
To contribute to the prevention of global warming as well as to improve transportation efficiency while reducing costs, Panasonic is working to reduce CO<sub>2</sub> emissions in logistics. We have set the targets of reducing CO<sub>2</sub> emissions per basic unit 1 by at least 1% year-on-year, and by 46% from the fiscal 2006 level by fiscal 2019, focusing on modal shift, introduction of low-emission vehicles and biodiesel fuel, reduction in transportation distances, and improvement in load factor.

In fiscal 2014, our global CO2 emissions from logistics activities came to 0.81 million tons across the world, of which international transportation was 0.36 million tons (44%), and domestic transportation within Japan was 0.15 million tons (19%). Due to the efforts described above, CO<sub>2</sub> emissions per basic unit<sup>\*1</sup> were reduced by 8% from the previous fiscal year, and by 40% from fiscal 2006.

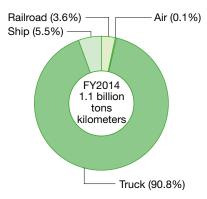
## Major initiatives taken for green logistics



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



# Transportation Amount by Transportation Method (Japan)



<sup>\*1</sup> CO<sub>2</sub> emissions per transportation weight; the scope covers both international and domestic transportation.

# **Collaboration with Logistics Partners**

We are working to increase transportation efficiency in collaboration with our logistics partners. In fiscal 2014, we formed a joint scheme with local logistic operators as a part of our efforts in secondary transport "2" within Japan. Specifically, we outsourced secondary transport, which was conventionally conducted in-house, to local logistic operators. This aims to improve load factor and reduce CO<sub>2</sub> emissions by having our products transported together with other consignments that the operators regularly transport. As a part of this partnership support, we offered the logistics operators an IT system that we developed to help improve the efficiency of transportation to stores. These efforts resulted in an annual CO<sub>2</sub> emissions reduction of 2.181 tons.

\*2 Transportation of Panasonic products from a distribution center to stores such as dealers in each region.

## Modal Shift\*3 Initiatives

Panasonic promotes modal shift in transportation from trucks to railroad in order to reduce CO<sub>2</sub> emissions. Our railroad freight transportation within Japan in fiscal 2014 totaled 15,859 five-ton containers, which resulted in 7,705 tons of CO<sub>2</sub> emissions reduction.

For example, imported air conditioners to be sold in the north of Japan were conventionally transported to Tokyo Port by ship and then to Sendai by truck. In fiscal 2014, this system was partially changed so that some of the products were shipped directly to the nearest port, Sendai Port. Although there was an issue that transportation took longer than before, it was overcome by combining this with the transportation method of unloading the ship at Tokyo Port and then using railroad freight to Sendai.

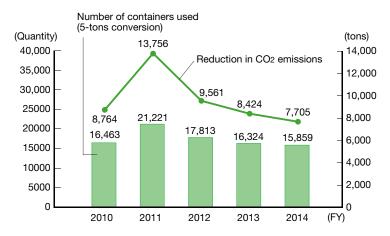


Handmade Battery Class in collaboration with MLIT

In addition, our active efforts in promoting modal shift were recognized, and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) newly certified eneloop to bear the Eco Rail Mark \*4. This made a total of eight Panasonic products Eco Rail Mark certified. In September 2013, our Eco Rail Mark-certified Energy Device Business Division and MLIT jointly promoted the Eco Rail Mark and eco-conscious logistics for higher awareness, in a Panasonic Handmade Battery Class which was held for about fifty 5th-grade students at a primary school in Osaka City.

\*3 Switch from truck and air transport to railroad and sea vessel transport that has less environmental impact.

## CO<sub>2</sub> Emission Reduction Effect by Railroad Transportation (Japan)



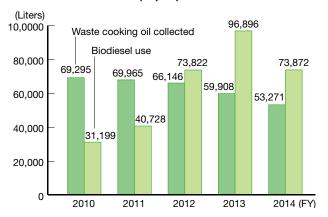
Note: Then-SANYO Electric not included in fiscal 2010.

<sup>\*4</sup> A mark to identify businesses and products that use a certain level of railroad transportation with little impact on the environment.

# **Use of Biodiesel Fuel (Japan)**

Panasonic promotes transforming waste cooking oil collected from its business sites into biodiesel fuel and utilizing it for vehicles used in its production, procurement, and marketing activities. Since fiscal 2010, we have been using 100% biodiesel fuel for the joint transportation with the Asahi Shimbun Company in the Tokai and Tokyo Metropolitan areas to enhance further usage of biodiesel fuel. However, due to the structural reform in fiscal 2014, joint transportation with the Asahi Shimbun Company decreased in number, resulting in a decrease in usage of biodiesel fuel.

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



Note: Then-SANYO Electric not included in fiscal 2010.

# **Recycling Wooden Shipping Pallets Used for Transportation**

As an effort to reduce logistics waste, we jointly entered into a full recycling scheme for used wooden shipping pallets with Eidai Co., Ltd. in fiscal 2014. Wooden shipping pallets used for our transport were previously discarded, but they are now recycled as particle board material by Eidai, which we then purchase to use in our construction products. We also started similar schemes with other companies, thereby recycling 496 tons of used wooden shipping pallets in total in fiscal 2014.

Another effort in wooden pallet recycling started under a partnership with 8010 Co., Ltd., where used wooden pallets are repaired for reuse. We reused 136 tons of such second-hand wooden pallets in fiscal 2014.

We will continue to make effective use of the used wooden shipping pallets and reduce logistics waste.

# Recycling Scheme for Wooden Shipping Pallet with Eidai



Provides used wooden pallets

### **Eidai**

## Provides wooden particle boards

# South of the second of the sec

# **Panasonic**

Particle boards are utilized in Panasonic products (e.g.construction materials)

# **Environment: Resources Recycling**



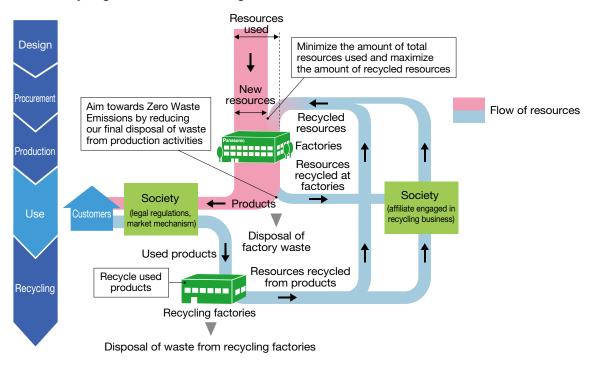
# **Recycling-oriented Manufacturing**

With swift economic growth advancing worldwide and bringing heightened attention to concerns over resources, the sourcing of new resources and materials not only impact our global environment, but minerals resource depletion and materials pricing run-up have 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, aim towards Zero Waste Emissions by reducing our final disposal of waste from production activities, and recycle used products.

We have already been working 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 we send to landfills to as close to zero by reducing the waste generated at our factories and promoting the use of recycled resources. 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.

## **Goal of Recycling-oriented Manufacturing**



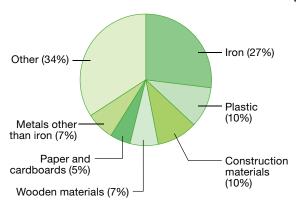
We use many kinds of resources, including iron (27% of total resources used) and plastic (10% of total resources used), due to our wide range of products and businesses, from home appliances, components such as semiconductors and batteries, to housing. In Recycling-oriented Manufacturing, it is important 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.

Furthermore, we clarify recycled resource utilization issues by identifying the volume of each type of resource used across the Panasonic Group. For example, in the case of recycled plastic, we used approx. 15,000 tons of recycled plastic in our products in fiscal 2014 by identifying the characteristics required in the materials to be used, securing a stable supply, researching how to recycle it in production, and developing new recycling technologies. By promoting the use of recycled resources in products, a number of various products that incorporate recycled resources have been launched since 2012.

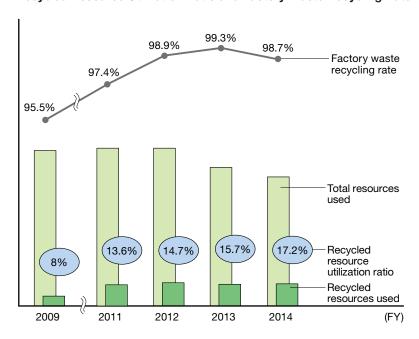
Recycled resources increased in volume with growth of lumber use, as a result of demand for construction materials, etc., combined with increase in use of recycled plastics. As a result, the recycled resource utilization ratio \*1 rose to 17.2%, surpassing the 16% target for fiscal 2019. We plan to work on the further reduction of total resources used and maximum utilization of recycled resources, to maintain and improve the recycled resource utilization ratio.

In addition, as for the recycling rate of waste at factories, we had traditionally set 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 the entire Group since fiscal 2011. The factory waste recycling rate \*2 was 98.7% for fiscal 2014 against the target of 99.5% or more in fiscal 2019. (see page 74)

### Breakdown of Total Resources Used in Fiscal 2014 (by category)



## Recycled Resource Utilization Ratio and Factory Waste Recycling Rate



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

<sup>\*2</sup> Factory waste recycling rate = Amount of resources recycled/(Amount of resources recycled + Amount of final disposal)

# **Environment: Reduction in Resources Used**



# **Reducing Product Mass**

To reduce the use of resources for production, we continuously look to reduce the weight of our products. 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.

## **Professional Projector**

The professional projector PT-DZ21K is a high-brightness model used to project images onto large screens at event venues and convention halls. With its newly-developed high-efficiency lamps, a four-lamp system, and a new liquid cooling system, the projector offers a brightness of 20,000 lm from the 43-kg body, which is significantly lighter and more compact than the equivalent models of other manufacturers. It also contributes to resource





Professional Projector PT-DZ21K

PT-DZ21Ks in use

reduction in consumables through its highly efficient long-life lamps and a unique long life ECO filter that is not only washable and reusable but also stays clean for a long period of time.

▶ Professional projectors http://panasonic.net/avc/projector/

## **Cordless Impact Wrench**

EZ7552, a cordless impact wrench for the Japanese market, boasts being Japan's lightest "1 wrench in the same size with a weight of 2.6 kg including the battery pack, thanks to its compact design elaborated by the double hammer block. Not only does it achieve a smaller size and lighter weight, it offers a maximum tightening torque of 470 Nm and a capacity to loosely tighten approximately 220 M24 high-strength bolts. Because the cordless impact wrench is designed to be used for large-diameter bolts at high places, lighter weight contributes to improved workability as well as resource-saving.



Cordless Impact Wrench EZ7552

<sup>\*1</sup> As of January 2014. Among the impact wrenches (maximum torque: over 400 Nm) by Japanese electric power tool manufacturers. Surveyed by Panasonic.

# **Environment: Recovery of Resources**



# Global Initiatives for 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 many states in the United States. In China as well, a similar law has been taking effect since 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.

#### FY2014 Results

Japan	Recycled approx. 127,000 tons of four kinds of home appliances	
Europe	Collected approx. 40,000 tons of used electronic products	
USA	Collected approx. 20,000 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 364 designated collection sites and 36 recycling facilities, on behalf of the "Group A" manufacturers (21 companies including Panasonic). Our recycling factories, Panasonic Eco Technology Center Co., Ltd. (PETEC), Panasonic Eco Technology Kanto Co., Ltd. (PETECK), and Chubu Eco Technology Co., Ltd. (CETEC)\*1 conduct unique research to improve our recycling processes for more efficient treatment of the four kinds of home appliances\*2 and for the recovery and supply of more resources. In fiscal 2014, we recycled approx. 127,000 tons of the four specified home appliances.

- \*1 PETECK and CETEC are joint ventures between Mitsubishi Materials Corporation and Panasonic.
- \*2 Air conditioners, TVs, refrigerators/freezers, and washing machines/clothes dryers.
- ▶ Overview of Recycling of Specified Home Appliances

http://www.panasonic.com/global/corporate/sustainability/eco/resource/recovery/recycling/

▶ Panasonic Eco Technology Center Co., Ltd. (PETEC) http://panasonic.net/eco/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. In addition, jointly with its recycling partners, ENE has developed an efficient LCD panel cutting method which leads to a significant reduction in disassembly time, and has filed patent applications in Japan and Germany.



ENE's own collection site ElekSa established in Germany

In 2013, we collected approx. 40,000 tons\*3 of used products covered by the WEEE Directive.

\*3 Calculated by multiplying the weight of collected products through each collection system by our share on a product weight basis in the market that is relevant with the collection system.

#### **North America**

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. 20,000 tons 4 of used electronic products in 2013.

In September 2012, we joined 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. As of the end of 2013, 100% of our recycling service contractors have acquired third-party certification.

In Canada, there are currently nine provinces with WEEE recycling programs corresponding to respective provincial WEEE regulations. Together with the industry, we are working towards standardization between provinces for managing WEEE.

\*4 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 Chinese and Japanese Companies, and its operation started in February 2014. This new company aims at becoming an advanced model for home appliance recycling in China in accordance with the above regulations. Utilizing the methods of advanced and practical technology and a contemporary control system that have developed through our recycling business in Japan for more



PDSH

than a decade, the company engages in collecting and disassemblling used appliances as well as selling resources from used appliances. Through these businesses, the company will contribute to environmental conservation and the effective use of resources in the country.

## **Asia Pacific**

Movement towards legislation governing recycling is being accelerated also in various Asian countries.

In India, where a recycling law was enforced in May 2012, we have built a network of collection sites using brand shops and authorized service centers. In addition, following the enforcement of relevant laws in Australia in July 2012, we are engaged in the recycling of TVs and PCs through an organization jointly established with major manufacturers as a part of producer responsibility.

Electronic waste laws are expected to be enforced in Vietnam in the near future, and we are working in close liaison with the government to form the foundation of an efficient recycling system by planning an industry-led trial waste collection program.

Similarly, we are continuing to talk with the governments and industrial sectors of Malaysia, Thailand, and Indonesia, where legislation is in discussion, towards having optimized law establishment in each respective country.

### **Latin America**

With the strengthening of environmental legislation in Latin American countries, enforcement of recycling laws are being considered and introduced.

In Brazil, together with industrial associations, the retailing industry and the like, we are holding consultations with the government on building a recycling system. We also actively take part in waste collection campaigns in major cities and towns.

Additionally, we are continuing discussions to realize optimum legislation in Mexico, Costa Rica, Peru, Argentina, and Chile.

# Initiative to Improve the Home Appliance Recycling Rate\*5

Coinciding with the Act on Recycling of Specified Kinds of Home Appliances (the Home Appliance Recycling Law) enforced in April 2001, we started operation of PETEC in Kato City, Hyogo Prefecture, and propelled recycling of four kinds of home appliances under the concept of "product to product." In April 2005, we commenced operations of PETECK in Inashiki City, Ibaragi Prefecture, and CETEC in Yokkaichi City, Mie Prefecture, to increase the volume of resource recovery and to improve the purity of recovered resources. Our home appliances recycling rates have improved considerably over the last 13 years since 2001; the recycling rate of air conditioners increased from 75% to 88%, CRT TVs from 66% to 79%, refrigerators and freezers from 57% to 78%, and washing machines and clothes dryers from 56% to 84%. The recycling rate of flat televisions that became subject to law in fiscal 2010 was originally 60%, but improved to 86% in fiscal 2014. These figures are significantly higher than the legally-specified recycling rate of or each appliance.

In order to achieve such substantial improvements in the recycling rate and further enhancing the same, we continue to adopt and promote a range of measures, including developing new technology and introducing new processing lines and facilities.

For example, in fiscal 2014 PETEC newly added a disassembly line compatible with tilted drum washing machines, which is increasing each year. This has enabled both top-load fully automatic washing machines and tilted-drum washing machines to be disassembled in the same processing line, thereby significantly improving work efficiency.

At PETECK, an organic decomposition treatment equipment was introduced in March 2014. Although it has conventionally been difficult to sort parts and materials where the metal is glued with resin, such as copper pipes in air conditioners, the equipment can thermally decompose such resin into non-toxic gas which is then removed, leaving only the metals to be recovered. This improves the purity of the sorting process.

We are expecting to reach 20 million recycled home appliances in total in 2014 (PETEC processing a total of 11 million appliances, PETECK 5 million, and CETEC 4 million). The total recovered resources would be equivalent to 430,000 cars' worth of iron, copper equal to 200 statues of the Great Buddha of Nara, and 250 airplanes' worth of aluminum'. We will continue our recycling efforts, striving to achieve further increase in the volume of resource recovery and higher recycling rates.

- \*5 Home appliance recycling rate = Valuable resource weight / Total weight of used home appliances
- \*6 The legally-specified recycling rates for used home appliances are at least: 70% for air conditioners, 55% for CRT TVs, 50% for LCD or plasma TVs, 60% for refrigerators and freezers, and 60% for washing machines and clothes dryers.
- \*7 Base figures for the calculation are as follows: iron required for a car is 820 kg; copper required for the Great Buddha of Nara is 250 tons; and aluminum required for an airplane is 115 tons.



New washing machine disassembly line in PETEC



Organic decomposition treatment equipment in PETECK

# **Environment: Use of Recycled Resources**



# **Products Using Recycled Resources**

Under the concept of "product-to-product," we are enhancing our initiatives of utilizing resources recovered from used products. As for resin, we promote the reuse of resin recovered from our used home appliances (TVs, refrigerators, air conditioners, and washing machines and clothes dryers) for our products, as well as used PET bottle caps for parts in our refrigerators. We also started recycling scrap iron recovered from used home appliances in our products in 2013.

Resources recycling

Recycle resources

▶ Our approaches to Resources Recycling

http://www.panasonic.com/global/corporate/sustainability/eco/resource\_sp/

## **Enhanced Use of Recycled Resin in Home Appliances**

To efficiently utilize resin recovered from collected waste home appliances in addition to metals such as iron, copper, and aluminum, our recycling factory, Panasonic Eco Technology Center Co., Ltd. (PETEC), and Kato Plastic Recycling Factory of the Appliances Company work together for resin recycling.

#### Process of resin recycling



PETEC is capable of sorting three major types of resins with different purposes and properties—polypropylene (PP), polystyrene (PS), and acrylonitrile butadiene styrene (ABS)—from shredder residue of waste home appliances, with an accuracy of at least 99%. This precision separation is realized by our original near-infrared identification technology. Conventionally, shredder residues were generally discarded or used as fuel, however, this technology has enabled sorting and recovering of single resins. The technology also detects specific hazardous substances and removes them during sorting, which keeps the substance content significantly lower than regulated by stringent European legislation. Moreover, because no water is necessary for this sorting process and there is no need for effluent treatment, it contributes to reducing environmental impact caused by wastewater after the recycling process.

The recycled single resins sorted and recovered at PETEC are then transferred to the adjacent Kato Plastic Recycling Factory to be washed and processed to recover their chemical properties. Kato Plastic Recycling Factory is a manufacturing and development site that demonstrates promotion of use of recycled resin at our Appliances Company, a home appliance manufacturer and seller. The factory plays an important role in enhancing recycled resin utilization by developing recycling technologies, such as a more efficient method for cleaning recycled resins. Recycled resin is generally weaker in strength and has a shorter life than new resin. This is why its chemical properties have to be recovered to the level of new resin to make them usable as materials and components in new products. Different properties are required for different resins. We have established techniques that make full use of the properties optimal to each resin such as PP, PS, and ABS, which include adding antioxidants or mixing recycled and new resins.



PETEC resin selection machine using nearinfrared identification technology



Staff members at work

Recycled resin processed and quality-assured by PETEC and Kato Plastic Recycling Factory are reborn in our manufacturing factories as filter frames for air conditioners or internal parts in IH cooking heaters and refrigerators according to the resin type to serve the right functions in the right places.



Assembly process using recycled materials

### **Recycled Plastic Components**



## **Use of PET Bottle Caps**

Panasonic participates in the Ecocap Movement.\*1 In addition to the conventional Ecocap collection activity, we started a New Ecocap Movement from fiscal 2013, in which we utilize the collected PET bottle caps as a recycled resource for our own products. The PET bottles discarded in our 100 business sites across Japan are separated into bottles and caps. The caps are recycled as plastic by our partner companies and we utilize it in the vegetable compartment ceiling in our refrigerator.

\*1 Although the recycling of PET bottles is now well established, the caps tend to be discarded as trash. An NPO, Ecocap Movement promotes cap recycling across Japan. The organization collects PET bottle caps from homes, schools, and companies, and sells them to recycling companies. The profit made from the sales is donated to the Japan Committee for Vaccines for the World's Children (JCV).



PET cap collection box

# Utilizing the plastic recovered from PET caps to the vegetable compartment ceiling in a refrigerator





#### **Building a Recycling Scheme for Scrap Iron**

Jointly with Tokyo Steel Co., Ltd., we started a recycling scheme for scrap iron in July 2013. In this scheme, we recover the scrap iron from used home appliances and Tokyo Steel makes it into steel sheets. We then purchase the sheets back as a material for our products. Supplying scrap iron for recycling and repurchasing the recycled iron is the first scheme of its kind in the Japanese electrical manufacturing industry.

#### Self-recycling scheme for electric steel plates



Specifically, scrap iron from home appliances collected and treated at PETEC is supplied to Tokyo Steel's Okayama Plant, where the scrap iron is processed into electric steel plates. Panasonic procures the recycled steel plates and utilizes them in products. Discussions with Tokyo Steel commenced in 2010, and we have worked together since then to improve the quality of recycled iron to a level sufficient for production use, as well as developing the technology to improve the applicability of the recycled iron. From this we identified the optimum application of the electric steel plates, and refined its specific features (e.g. shape, strength, and weldability) to meet application-specific requirements. Use of thin electric steel plates in our products was first made possible in 2011. Through this close collaboration, we materialized this recycling scheme in 2013, a scheme where a home appliance recycling company that we own supplies scrap iron to be used to make electric steel plates.

The amount of scrap iron we initially supplied to Tokyo Steel was about 50 tons per month. In March 2014, it reached over 100 tons, and the recycled steel is being used in our products, including washing machines and ceiling materials for housing.

#### Self-recycling scheme process



The increase in electric steel plate usage leads to an increase in the usage of scrap iron, which is one of the most important resources in Japan. In addition, producing steel plates from scrap iron emits much less CO<sub>2</sub> compared with producing steel plates from scratch. This scheme also stabilizes the procurement price, because the price of scrap iron supplied from PETEC and the price of electric steel plates procured from Tokyo Steel are determined by the scrap iron fluctuation rate agreed between the two companies. We will further expand this recycling scheme for more efficient resource utilization, CO<sub>2</sub> emissions reduction, and stabilization of procurement prices.

\*2 Steel produced from scrap iron melted and refined in an electric arc furnace.

#### **Environment: Zero Waste Emissions from Factories**



#### **Improving Factory Waste Recycling Rate**

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

Although we strengthened our efforts in China, other Asian countries, and Europe, the rate in fiscal 2014 decreased to 98.7%, due to a new factory whose recycling scheme was still in the establishing process. We will continue our initiatives to achieve the factory waste recycling rate target of 99.5% by fiscal 2019.

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 the future, we will promote further reductions in resource losses through the Resource Loss Navigation, our original system developed to automatically display information to help reduce resource losses.

We are working diligently to constrain the level of revenue-generating waste and waste materials disposed of in landfills by further expansion of the reuse of resources. To achieve this waste reduction, we are focusing cutting down waste that is difficult to recycle, such as thermosetting resin, and strictly adhere to waste sorting practices in each production process.

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<sup>\*2</sup> prepared by each region, following our long-standing approach toward CO<sub>2</sub> reduction activities.

<sup>\*1</sup> Definition by Panasonic: Recycling rate of 99% or higher. Recycling rate = Amount of resources recycled/(amount of resources recycled + amount of final disposal)

<sup>\*2</sup> A chart-format summary of comparisons between "before and after" implementation of waste reduction and recycling measures.

#### **Runner Recycling**

We have uniquely developed a technology to recycle resin runners<sup>3</sup> that were conventionally discarded, in order to reduce waste, revenue-generating waste, and material procurement costs, as well as for efficient use of resources. The property of runners (resin) deteriorates through repeated melting and solidifying, therefore, recycling them as molding material affects the quality of the finished product. For this reason, the maximum percentage of recycled resin that can be added to molding materials is usually 20–30%. However, we developed a technique of adding to the runners a moderate amount of additives corresponding to the type of resin to prevent property deterioration, and succeeded in increasing this ratio as high as about 50%. From fiscal 2014 Panasonic AVC Networks Xiamen has been working towards eliminating runner waste by applying this technology to the runners in the molding process of parts such as lens barrels for digital still cameras.

\*3 Resin scraps unusable as products, generated from a molding process where a product is molded by pouring heat-melted resin into a mold and then cooled. The resin hardened at the filler inlet part and the like during this process becomes waste.





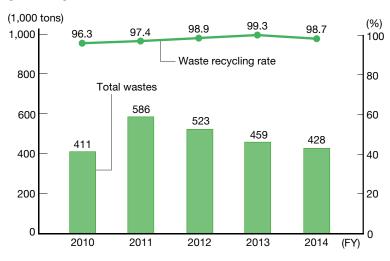


Runner recycling system

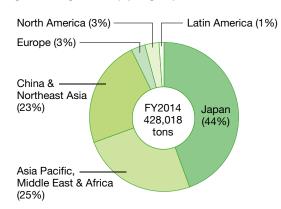
Runner

Lens barrel part molded with recycled plastic

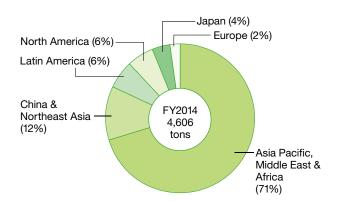
#### Amount and Recycling Rate of Total Wastes Including Revenuegenerating Waste



#### Breakdown of Total Wastes Including Revenuegenerating Waste (by region)



#### **Breakdown of Final Disposal (by region)**



#### Breakdown of Total Wastes Including Revenue-generating Waste for Fiscal 2014 (by category)

(tons)

			(10113)
Items	Total wastes	Recycled	Final disposal
Metal scrap	172,338	162,229	461
Paper scrap	45,036	42,653	134
Plastics	43,254	38,513	255
Acids	47,984	39,439	1
Sludge	22,037	16,106	1,524
Wood	27,490	21,139	18
Glass/ceramics	8,650	8,099	71
Oil	17,808	14,003	72
Alkalis	22,472	17,504	1
Other*4	20,947	17,913	2,069
Total	428,018	377,597	4,606

<sup>\*4</sup> Combustion residue, fiber scraps, animal residue, rubber scraps, debris, ash particles, items treated for disposal, slag, infectious waste, polychlorinated biphenyls (PCBs), waste asbestos (only in Japan).

#### **Environment: Water Resource Conservation**



#### **Approach 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 (see pages 38-40) accreditation criteria, and are speeding up the development of industry-leading products that contribute to water saving.

#### **Dish Washer and Dryer**

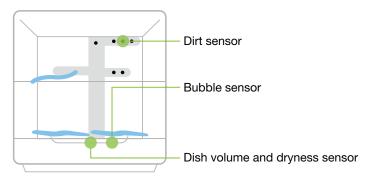
The Panasonic dish washer and dryer NP-TR6 only uses one-eighth of the water used for washing hands \*1, as it utilizes retained water to wash and rinse dishes efficiently by circulating only a small amount of water. Further, its ECONAVI function offers a range of energy and resource-saving features. The dirt sensor detects the amount of dirt on the dishes and reduces the number of rinsing cycles accordingly. The bubble sensor determines the volume of rinsing water depending on the soap lather made in reaction to the dirt. A combination of dish volume and dryness sensors control the temperature of the rinsing water, drying duration, and heater usage for drying dishes, depending on the amount of dishes as well as the room temperature. These features together realize up to a 20% reduction in water and electricity consumption.\*2

- \*1 When washing dishes for 6 people (53 items of tableware and 24 small items, based on the voluntary standards by the Japan Electrical Manufacturers' Association).
- \*2 Measured in the condition using 21 items of tableware for 3 people applied with soiling equivalent to 0.5 person's usage at a room temperature of 25°C.



Dishwasher and dryer NP-TR6

#### Three Sensors to Detect Dirt, Dish Volume, and Room Temperature



#### **Touchless Faucet**

With the Panasonic touchless faucet Sugupita, which is commonly used with bathroom vanities, users can turn the water on and off without touching anything but rather simply by placing a hand close to the sensor under the faucet. This sensor-operated mechanism was conventionally used for professional purposes such as in hotels and public toilets. Now the touchless faucet is available for home bathrooms, enabling people to contribute to water conservation. The faucet can save approx. 2 liters of water compared with the conventional method when washing hands with soap."3





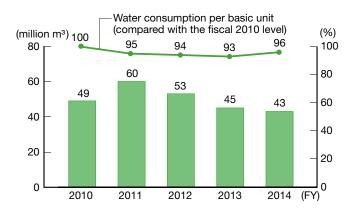
Sugupita Touchless Faucet

#### **Initiatives for Water Resource Conservation through Production Activities**

By collecting and reusing wastewater 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 focus on certain regions to address our use of water in our activities. Water used at factories in fiscal 2014 resulted in 42.66 million m³, reduced by 5.5% compared to fiscal 2013. The water used at factories per basic unit of production deteriorated year-on-year due to consolidation and closure of sites driven by the structural reform. Use of recycled water in fiscal 2014 amounted to 16.43 million m³.

# \*4 Water used at factories per basic unit of production = Water used at factories / Production volume.

# Amount of Water Consumption in Production Activities and Water Consumption Per Basic Unit



Note: Then-SANYO Electric and PLD at that time not included in fiscal 2010

#### **Breakdown of Water Consumption (by region)**

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

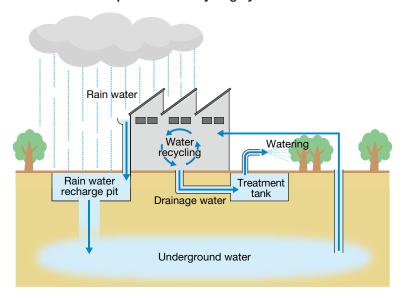
Region	Consumed	Municipal water/ industrial water	Groundwater	Rivers/lakes	Discharged
Japan	2,858	1,030	1,813	15	2,301
China & Northeast Asia	694	682	11	0	391
Asia Pacific, Middle East & Africa	642	581	57	5	427
North America	26	26	0	0	23
Latin America	25	10	14	0	5
Europe	22	10	12	0	21
Total	4,266	2,340	1,907	20	3,168

Panasonic Technopark in India 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.

<sup>\*5</sup> The calculation excludes the water circulating for a single purpose (e.g. water in a cooling tower).

#### Panasonic Technopark Water Recycling System



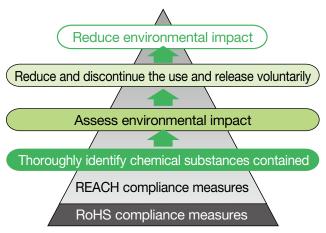
# **Environment: Chemical Substance Management**



#### Initiatives to Reduce the Environmental Impact of Chemical Substances

As represented by the enforcement of the REACH regulation 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 reducing the use of chemical substances that might adversely affect human health and the environment throughout their lifecycles. As specific initiatives, we aim to reduce 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.

#### **Process to Reduce the Environmental Impact of Chemical Substances**



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 (For Products) 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 http://panasonic.net/procurement/green/

#### **Chemical Substances Management Rank Guidelines (For Products)**

Ra	ank	Definition
	Level 1	<ul><li>(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.</li><li>(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.</li></ul>
Prohibit	Level 2	<ol> <li>(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.</li> <li>(2) Substances that are prohibited in products by the Panasonic Group prior to the effective period specified by a treaty, law, or regulation.</li> <li>(3) Substances whose use is voluntarily restricted by the Panasonic Group.</li> </ol>
	Level 3	Any substance other than those specified as a Level 1 or Level 2 Prohibited Substance that is 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.
· ·		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.

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

Note: Covered legislation and chemical substances include: Class I Specified Chemical Substances under the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; substances whose manufacture etc. is prohibited by Article 55 of the Industrial Safety and Health Act; EU RoHS Directive; and Annex XVII of the EU REACH Regulation. For more details, see the chapter on Specified Managed Substances in the Chemical Substances Management Rank Guidelines (For Products).

#### **Chemical Substances Management Rank Guidelines (For Factories)**

Rank	Definition
Prohibit	Use of the following substances should be immediately discontinued: Carcinogens for humans Ozone depleting substances (excluding HCFCs) Substances whose use is prohibited by Panasonic 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. Substances whose manufacture is prohibited by the Japanese Industrial Safety and Health Act Substances whose manufacture and use are prohibited by international treaties
Reduce	Substances whose use, release and transfer should be identified and reduced. Substances other than prohibited substances that might pose risks to human health and the environment.

Note: Covered legislation include: PRTR Act (chemical substances), environmental criteria under the Basic Environment Act; the Industrial Safety and Health Act; and the Stockholm Convention. For more details, see the chapter on The Aim of Establishing the Chemical Substances Management Rank Guidelines (For Factories) in the Chemical Substances Management Rank Guidelines (For Factories).

#### History of Our Initiatives to Reduce the Environmental Impact of Chemical Substances

Social trends	1989: The Montreal Protocol entered into force	1992: Earth Summit in Rio de Janeiro— Agenda 21	1996: Discontinuance of the use of specified chlorofluorocarbons by industrialized cour	Johannesburg	2006: The RoHS Directive entered into force	2007: The REACH Regulation entered into force	
	1990	19	95	2000	2005	2010	
Panasonic		1992: Discontinued us PVC resin in pa		March 2003: Discontinued use of lead in	use of six	March 2009: Discontinued use of PVC in	March 2011: Will discontinue use of PVC in
All products		materials		solders globa	ully*2 RoHS substances globally*2	internal wiring of new products to be sold in Japan <sup>*2</sup>	internal wiring of new products globally*2
Individual products	1991: Released mercury-free manganese dry cells	1992: Released mercury-free alkali dry cells	1995: Discontinued use of CFC refrigerant in refrigerators globally	2002: Discontinued use of HCFC refrigerant in air conditioners (Japan)	Refrigerators	2006: Released lead-free plasma display panel	s
Chemical substances used at factories		[ u c	996: 1997: Discontinued Began Ise of identification Chlorinated work for Organic PRTR	1999: Launched the "33/50" reduction activity <sup>3</sup>	2004 (Japan): Achieved Voluntary Action Plan Reduced use by 75 Reduced release a transfer amount by compared to fiscal	Action Pla 5% Reduced and amount o 62% target sub	Voluntary

<sup>\*2</sup> 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,

<sup>\*3</sup> A reduction activity that promotes cutbacks in the use, release, and transfer of chemical substances by 33% in three years and by 50% in six years, compared to the fiscal 1999 level.

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. In July 2009 we asked our suppliers to submit the data in a common format by the Joint Article Management Promotion Consortium (JAMP), and approx. 10,000 suppliers are currently using this format.

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 February 2014 we discontinued the authorization process required to use the e-learning site to make the site more conveniently available to a wider audience, including our suppliers and their customers.

In addition, to deepen the understanding on the handling of chemical substances among our suppliers outside Japan, we have conducted practical seminars to provide attendees with a general overview as well as training on the preparation and submission of data since fiscal 2011 in China, Southeast Asia and Europe.

#### ▶ JAMP http://www.jamp-info.com/english

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 http://industrial.panasonic.com/ww/i\_e/00000/rohs\_reach\_e/rohs\_reach\_e.html

#### **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 http://www.panasonic.com/global/corporate/sustainability/eco/chemical/reach/

#### **Reduction in Usage and Emissions of Chemical Substances**

Chlorofluorocarbons (CFCs) used as a heat insulator and a refrigerant for freezers and air conditioners can damage the ozone layer and cause global warming. We developed the technology to utilize CO<sub>2</sub>, which has much smaller impact

than CFCs, as a refrigerant and have been supplying a home boiler using CO<sub>2</sub> refrigerant since 2001. Although the CO<sub>2</sub> refrigerant is suitable for heating purposes, it was difficult to apply to refrigerators and freezers, especially in large professional equipment due to insufficient cooling efficiency and size problems. However, with support from the New Energy and Industrial Technology Development Organization (NEDO), we developed a freezer system using CO<sub>2</sub> refrigerant and now supply these CFC-free freezers and refrigerated display cases to supermarkets and convenience stores in Japan.



OCU-CR1000VF, a CFC-free freezer using CO<sub>2</sub> refrigerant



RAS-V673, a display case compatible with a CFC-free freezer (customized specifications)

#### 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.

#### **Management of Chemical Substances at Factories**

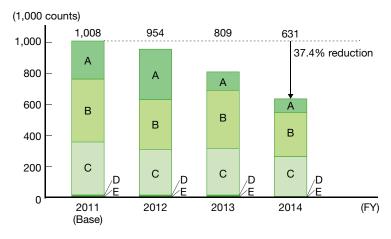
Since 1999, we have been conducting the 33/50 Reduction Activity to materialize reduction by 33% in three years and by 50% in six years. In Japan, we started promoting cutbacks in the use, release, and transfer of chemical substances at our factories in fiscal 2000. Against the target in our voluntary action plan, a reduction by 50% from the fiscal 1999 level, we achieved a 75% reduction in chemical substance use and a 62% reduction in release and transfer in fiscal 2005. Since then we have been continuing the activity, focusing on substances with particularly large amounts of release and transfer, setting a voluntary action target of reduction by 30% compared to the fiscal 2006 level. As a result, we achieved a 46% reduction in the amounts of release and transfer of specified key reduction-target substances across all factories worldwide in fiscal 2011.

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. In addition to this, we have classified chemical substances based on the hazardousness and created a unique indicator, Human Environmental Impact <sup>14</sup> which focuses on reducing substances with a higher hazard level, by specifying a "hazardousness factor" for each substance. This is also used globally in all factories.

#### Classification of hazards

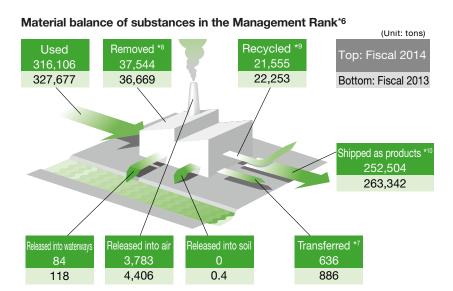
Classification	Hazards <sup>*5</sup>	Hazardousness factor
А	Carcinogenicity/Ozone layer depletion	x 10,000
В	Serious or direct impact	x 1,000
С	Medium impact	x 100
D	Small or indirect impact	x 10
Е	Minor impact or not assessed	x 1

#### **Human Environmental Impact**



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

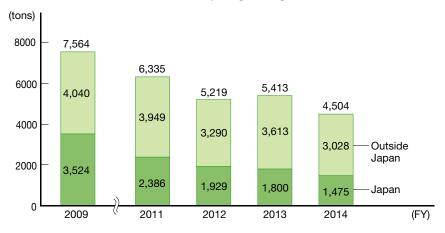
We implemented the plan to reduce the Human Environmental Impact by 27.4% by fiscal 2014 compared to fiscal 2011. The final result in fiscal 2014 was a successful 37.4% reduction, achieved through replacing highly toxic substances in paints, improving yields, promoting recycling, introducing substances with low solvents and hazards, and improving processes—including reviewing the amount of substances used or the number of washing cycles, as well as improving the efficiency of removal/deodorization equipment. We will continue our initiatives to minimize the amount of substances with environmental impact released through our production activities.



- \*4 Human Environmental Impact = Hazardousness factor x Release and transfer amount.
- \*5 In addition to carcinogenicity, hazards to human health include genetic mutation, reproductive toxicity, and acute toxicity.

  In addition to ozone depleting substances, hazards to/substances with impact on the environment include ecological toxicity, substances that impact global warming, and substances that generate photochemical oxidants.
- \*6 Based on the Chemical Substances Management Rank Guidelines (for factories). Including the substances in the Pollutant Release and Transfer Register Act.
- \*7 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.)
- \*8 The amount of substances converted into other substances through neutralization, decomposition, or other chemical treatment within the factory.
- \*9 The amount of substances recycled with revenue, as well as those recycled free of charge or with any payment.
- \*10 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.

#### Release/Transfer of Substances Requiring Management



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

# **Environment: Biodiversity Conservation**



#### **Approach to Biodiversity**

Business management and human life in our society is founded on the ecosystem services—a multitude of nature's blessings provided by our natural capital, including soil, air, water, and animals and plants. It is important to preserve biodiversity to sustain the benefits derived from this natural capital towards the future; however, this biodiversity is experiencing significant damage at an unprecedented speed. Accordingly, corporate enterprises are now expected to address the 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 NGOs, and specialized agencies. Specifically, since 2009, we have identified and are promoting action in three areas where our business activities affect biodiversity: land use, procurement, and products.

#### **Initiatives in Land Use**

Green areas in our business sites can potentially contribute to conserving biodiversity in that area. In particular, hardly any natural environments where wild animals can live and breed remain in urban areas. Therefore, even small areas of green in corporate premises can become a precious environment for a variety of living organisms if they retain indigenous vegetation and a watery environment, since such areas are often closed from the outside world and hard for foreign species to blend in.

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.

#### **Wide-area Ecological Network Initiative**

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.



Appliances Company's Kusatsu Factory in Shiga Prefecture

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 585 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 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 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. More detailed information is disclosed in the Kusatsu Factory's Biodiversity Report.

Since fiscal 2012, we have been conducting a series of surveys on the nesting habits of great tits, one of the indicator species in urban and suburban greenery (woodlands). The survey aims to produce an environmental assessment of green areas in our premises and to understand the scope of "green corridors." We installed nest boxes on trees and bushes near paths, and continuously monitor nesting of great tits and greenery conditions at the same time.

We are well 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.



Nest boxes in the green area

▶ Kusatsu Factory's Biodiversity Report http://panasonic.co.jp/ap/ecological/pdf/biodiversity\_report(en).pdf

#### Protecting Rare Fish and Plants Disappearing in Osaka

In March 2009, we built Hanei no Hiroba (Square of Affluence), an area of about 11,000 m² of greenery in Eco Solutions Company in the Kadoma site and a corner of the greenery was made into a biotope of 300 m². To make the best of its location positioned between the Yodogawa River and Tsurumi Ryokuchi Park in Osaka Prefecture, we have been monitoring its living organisms following the expert advice and instructions of Osaka Prefecture University from the stage of planning for the biotope. The biotope has been maintained by volunteering employees from its start. Each early spring, spot-billed ducks nest and hatch their eggs in the biotope. Delightful little ducklings contribute to raising the environmental awareness among employees.

In June 2012, with the proposal and instructions from the Aquatic Life Conservation Research Center of the Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture, we introduced hemigrammocypris rasborella (a fresh water fish belonging to the carp family) and monochoria korsakowii (a marsh plant) in the biotope. We have been protecting these species, which are both specified as threatened species in the Red List by the Ministry of the Environment and Osaka Prefecture. In September 2013, we conducted our first population survey of hemigrammocypris rasborella by volunteering employees and counted as many as 1,500 of the fish living in the pond, grown from 40 at the time of introduction. We also started publishing a newsletter, Monthly Biotope, in October 2013 to introduce the organisms living in our biotope to a public audience.

In recognition of our efforts in biodiversity conservation, we concluded the Osaka Partnership Agreement on Biodiversity with Osaka Prefecture, Osaka Prefecture University, and the Research Institute of Environment, Agriculture and Fisheries in November 2013. This agreement has been established by Osaka Prefecture to support companies that strive for biodiversity conservation through partnerships with specialized institutions. The aim of the partnership is to promote voluntary contributions to biodiversity conservation among companies through Osaka Prefecture publicizing the activities of the partner companies. At the time of the agreement signing ceremony, we newly introduced 100 Japanese Medaka fish (oryzias latipes) born in Kitakawachi in Osaka Prefecture. Japanese Medaka fish are



Biotope at Eco Solutions Company



Population survey of hemigrammocypris rasborella by volunteering employees



Releasing Japanese Medaka from Kitakawachi at the signing ceremony

also designated as a threatened species in the Red List by the Ministry of the Environment and Osaka Prefecture.

Through these activities, we continue to preserve the local biodiversity and raise environmental awareness among our employees.

#### Square of Connection to Preserve the Local Ecological Network

PanaHome Corporation built a green area called Tsunagari no Hiroba (Square of Connection) within the premises of its headquarters building and opened it to the public. Tsunagari no Hiroba is a green zone designed to preserve of the ecosystem network in the community, or support people unable to go home or to enable business in a major disaster, with the support of projects by Osaka Prefecture, including Green Breeze Flow Building Project and the Anti-disaster Safe Road Construction Project. The zone consists of a biotope, trees suited to the local climate and weather, a photovoltaic power generation system, a wind power generation system, etc. The name of the square reflects the concept of connecting the trust from society—including our customers and local community—to our business



An aerial view of Tsunagari no Hiroba

activities, and then further expanding it to the global environment and its future through local biodiversity conservation.

Also, the company followed the Eco Solutions Company in signing the Osaka Partnership Agreement on Biodiversity with Osaka Prefecture, Toyonaka City, Osaka Prefecture University, and the Research Institute of Environment, Agriculture and Fisheries in February 2014.

#### **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 2014, the total procurement of timber and wood materials was measured at approx. 430,000 m³. By category, this breaks down to 82% meeting Category 1 "Priority" procurement standards (a 3-point year-on-year increase), 18% in Category 2 "Acceptable" (a 3-point year-on-year decrease), and 0.02% in Category 3 "Avoiding" (a 0.28-point year-on-year decrease). We will continue our initiatives to eliminate the timber in Category 3.

# Category Category Timber and wood materials with priority procurement • Those certified by a third party that they do not harm forests with environmentally high conservation values • Those certified by a third party that the supplier conducts sustainable forest management • Recycled wood materials acceptable for procurement • Timber and wood materials acceptable for procurement • Those certified by an industry organization or equivalent that the logging is legal Category Timber and wood materials to be avoided for procurement • Those that are not confirmed to be legally logged

#### **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 (see pages 38-40) 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.

In fiscal 2014, Panasonic Environmental Systems & Engineering Co., Ltd. developed ATPS-BLUEsys, a Ballast Water Management System (BWMS) to reduce disturbance from maritime transportation of the marine ecology of local sea areas. Ballast water is sea water used to retain the balance of a freight vessel at sea when it is not carrying shipment. Because the ship travels across the sea taking sea water from one port and then draining the water into another port, the impact of foreign organisms such as plankton and bacteria on the local ecology, environment, and resources is becoming an increasingly serious problem. ATPS-BLUEsys treats microorganisms in the water with inline electrolysis without using filters, which is the first in Japan. The system can treat the water to a level lower than the standards by the International Maritime Organization IMO), and successfully acquired the IMO G9 Basic Approval (G9BA). The system is expected to be launched in the market in 2015.

Panasonic Develops Ballast Water Management System to Help Protect Marine Ecosystems http://panasonic.co.jp/corp/news/official.data/data.dir/2014/01/en140128-2/en140128-2.html

## 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.

▶Yellow Sea Ecoregion Support Project http://panasonic.net/citizenship/wwf/yellowsea.html



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# **Environment: Collaboration across the Supply Chain**



#### **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**

Since the publication of the Green Procurement Standards in 1999, we have been promoting the manufacture of ecoconscious products in partnership with our suppliers. Furthermore, in the Green Procurement Standards, we set out the establishment of a group of suppliers who support our Environmental Policy in supplying products and goods in order to materialize the targets in supplier collaboration stated in our Green Plan 2018. In addition to cooperation in "reducing environmental impact in supplier business operations" and "sharing achievements through collaboration," we are asking our suppliers to "seek the cooperation of upstream business partners" to expand the scope of activities of reducing environmental impact throughout the entire supply chain.

Also, based on the Green Procurement Standards, we have been conducting the Green Procurement Survey, where we monitor the implementation status of our suppliers regarding our requests, to promote environmental impact reduction activities more effectively with our suppliers. In fiscal 2013, we conducted a trial survey targeted at our major global suppliers. 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," and "biodiversity conservation."

From fiscal 2014, we have replaced surveys conducted on a group-wide scale with surveys at a site level as a means of communication with our suppliers.

In response to the enhancement of regulations such as EU RoHS Directive, we have been engaging in continual environmental quality assurance audits of our suppliers since 2005 to improve the management level throughout the entire supply chain. In fiscal 2014, we assessed the environmental quality assurance systems of some 2,400 suppliers and have supported their efforts to upgrade their management levels.

▶ Green Procurement Standards http://panasonic.net/procurement/green/

#### Calling on Suppliers to Reduce Their Environmental Impacts

In order to assess greenhouse gas (GHG) emissions across the entire supply chain (scope 3°1), we made our original calculations based on the Greenhouse Gas Protocol, the international accounting standard for GHG emissions. Since fiscal 2012 we have conducted assessment surveys on four occasions, with the cooperation of 185 suppliers in the areas of raw materials, electrical and electronic components, and processed parts. In fiscal 2014, we conducted our fourth survey, for 37 suppliers of raw materials and electrical and electronic components who had cooperated with us in fiscal 2012, to check the changes between the first data (for fiscal 2011) and the fourth data (for fiscal 2013) in GHG emissions and GHG emissions purchasing price per unit °2. As a result of calculations by the 37 cooperating suppliers, the total GHG emissions in business with Panasonic



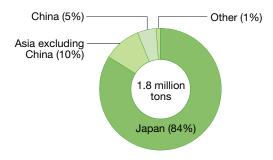
Seminar on trial of identifying GHG emissions in the supply chain

from the supplier range, upstream range (raw material suppliers and component manufacturers), and downstream range (domestic import and logistics companies) were reduced by about 1.80 million tons (CO<sub>2</sub>-equivalent), and 0.38 million tons respectively since the first study. In addition, the basic unit improved by 2.8% from the first study. In the future, we plan to make further advances with attention to economic rationality and comprehensiveness of gathered data for both our suppliers and Panasonic.

Additionally, our GHG emissions in the upstream range were estimated using the GHG emissions per basic unit by resource type, based on the volume of materials purchased and on the Input-Output Table published by the Japanese government. The estimation results based on fiscal 2013 data is 13.27 million tons, roughly quadruple the GHG emissions of our own production activities.

- \*1 Other indirect emissions, excluding Scope 1 (direct emissions from facilities owned and controlled by Panasonic) and Scope 2 (emissions from production of energy consumed at facilities owned and controlled by Panasonic).
- \*2 GHG emissions purchasing price per unit = GHG emissions / purchasing price

# Breakdown of GHG emissions in business with Panasonic 37 leading suppliers (by region)



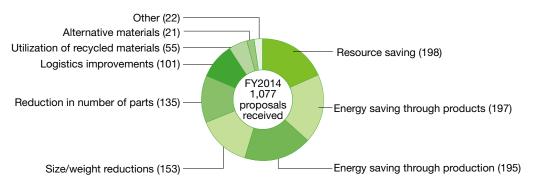
#### **Sharing Achievements through Collaboration**

Since fiscal 2010, we have been implementing the ECO-VC\*3 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. Actions in China and other Asian countries have been accelerated from fiscal 2013. In fiscal 2014, suppliers from around the world submitted a total of 1,077 ideas on energy saving for products and factories, or proposals on how to make smaller and lighter goods or using fewer parts. To share the best of these proposals with all our suppliers, we established the Panasonic Excellent Partners Meeting, which is attended by 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 nonpetroleum materials).

\*3 Value Creation

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



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

Items	FY2012	FY2013	FY2014
Number of proposals	901	866	1,077
CO <sub>2</sub> reductions derived from proposals	323,000 tons	412,000 tons	483,387 tons
Use of recycled resources derived from proposals	16,521 tons	17,011 tons	19,353 tons
Reduction in resources used derived from proposals	16,231 tons	18,431 tons	21,211 tons

#### Collaboration with Environmental NGOs

We are also promoting action in cooperation with the Chinese environmental NGO, the Institute of Public and Environmental Affairs (IPE). IPE publishes a database of business entities causing environmental pollution. We screen and evaluate suppliers based on this data and are working to prevent pollution in the upstream range of the supply chain.

# **Environment: Environmental Sustainability Management across the World**



#### **Global Eco Projects**

We launched the Global Eco Project in fiscal 2008 to enhance concrete activities in line with the actual situations in respective regions in the world, with a focus on the global promotion of environmental sustainability management. Following the policy of the Panasonic Group, each region publicly announced its commitment as 'eco ideas' Declarations, and has actively implemented efforts via their own approaches to achieve the goals of the Group.

These activities started first in China, and by fiscal 2011 Declarations were announced in all regions where we manage business, and the structures to promote environmental sustainability management in line with each region were strengthened. At present, independent activities are being planned and executed in light of regional environmental issues.

#### Southeast Asia & Pacific Announcing a New Eco Declaration

Panasonic Asia Pacific Pte. Ltd. (PA) established its medium-term environmental goals in fiscal 2011. Since then, it has been engaging in various activities and publishing the progress it achieved each year. In fiscal 2014, PA succeeded in achieving all three of its goals (80% ratio in sales of eco-conscious products, 600,000 tons contribution to reducing CO<sub>2</sub> emissions, and environmental education for 200,000 children). In June 2014, it announced the following targets as a new Eco Declaration to achieve "A Better Life, A Better World" with the community through products, solutions, and manufacturing centered on the environmental technologies of Panasonic.

#### Targets of Southeast Asia & Pacific Eco Declaration

Items	Fiscal 2016 targets
Contribution in reducing CO <sub>2</sub> emissions	· 8 million tons of CO <sub>2</sub> emissions reduction through product use · 700,000 tons of CO <sub>2</sub> emissions reduction through green manufacturing activities
Best use of resources	· Promote recycling oriented manufacturing and make best effort to utilize recycled resources
Chemical substance management	· Reduce environmental impact through the prohibition of use of substances regulated under EU RoHS Directive
Environmental education	· Promote eco education and outreach to another 200,000 members of the community

#### Communication and Application of Environmental Technologies and Solutions

Panasonic Malaysia Sdn. Bhd. (PM) participated in the International Greentech & Eco Products Exhibition & Conference (IGEM) 2013, an exhibition of environmental technologies and eco-conscious products held in October 2013, for the fourth year and promoted eco-conscious products and energy solutions. Specifically on display were electric vehicle (EV) charging infrastructure, photovoltaic power generation systems, a range of ECONAVI (see page 45) products that reduce energy consumption in household appliances, air cooling systems that make use of natural airflow, LED lighting and energy-saving house construction technology. Through these products, the company is proposing a



Panasonic booth at IGEM

lifestyle founded on efficient energy consumption without compromising a comfortable lifestyle.

PM is also working together with various partners on environment-related projects. The company has concluded a partnership on EV charging infrastructure development with the Tan Chong Group involved in the production and sales of Nissan Motor vehicles. With the Malaysian Photovoltaic Industry Association, development of photovoltaic power generation facilities is presently underway. For Starbucks, PM has installed LED light fixtures and inverter air-conditioning units, and contributes to improvements in energy efficiency.

PT. Panasonic Gobel Indonesia participated in the Indonesia Japan Expo 2013 held in December 2013, offering solutions for the smart community, including stores, other facilities, towns, offices and homes.

In the presentation of solutions for retail stores, the pioneering CO<sub>2</sub> emissions trade experiment store run in Tokyo in cooperation with Lawson, Inc. was reproduced at the exhibition and drew abundant interest from visitors. In solutions for various facilities, Panasonic became the first in Indonesia to introduce an agricultural assistance system that holds promise for application in plant factories. The system, designed for automatic control of the vegetable cultivation process, shows great potential in view of the rising consumer consciousness for safe food products and concerns over the stability of food supplies in face of global warming and climatic changes. In town energy solutions, an actual Energy Creation-storage Linked System for Outdoor Infrastructures, an independent power source for mobile phone base stations that combines photovoltaic cells and accumulator batteries, was on display. The Fujisawa Sustainable Smart Town (see page 53) located in Fujisawa City, Kanagawa Prefecture, Japan, was also presented, showing underfloor circuitry storage for offices and multi-air-conditioning system for buildings now being introduced in Indonesia as solutions to creating comfortable and ecoconscious office space.

#### **Environmental Education for Children**

Under the strategic partnership between Panasonic and the UNESCO World Heritage Site Centre (see page 102), Panasonic Vietnam Co., Ltd. and UNESCO Hanoi Office jointly organized a World Heritage Eco Learning Program in June 2013 at the My Son Sanctuary and Hoi An Ancient Town, World Heritage sites located in Quảng Nam Province, central Vietnam. A total of 130, including junior high school students, participated in group work on actions to be implemented to protect World Heritage Sites and learned of the importance of protecting cultural properties and the environment.

In cooperation with the Bangkok Metropolitan Administration, Samut Prakan Province, World Wide Fund for Nature (WWF) Thailand, and the Foundation for Environmental Education for Sustainable Development (FEED), the Panasonic Group in Thailand is supporting the Low Carbon School Network (LCSN) Project for primary and lower secondary school students in Samut Prakan Province. The LCSN Project is also coordinated with Earth Hour (movement urging homes and offices to turn off lights for one hour) promoted by WWF worldwide and gives awards to schools engaging in outstanding environmental activities. In addition, the Smart Energy Camp



Children listen as activities to protect World Heritage Sites are explained



Children speaking on what they have realized through environmental learning

is held to enable children to learn about the environmental technologies of Panasonic and give presentations on what they have realized related to the environment, thus boosting eco-consciousness in everyday living.

#### **Awards in Sustainability**

PA won the Top Honour for the Singapore Sustainability Awards 2013 under the Green Technology Awards, Large Enterprise category and received the Best Company for Sustainability, Electronics Global at the IAIR Awards 2014. The Singapore Sustainability Awards 2013 give recognition to outstanding business practices related to sustainability, innovative green technology solutions and environmental activities on the corporate level. PA was recognized for the outstanding energy efficiency of its products and energy solutions focused on sustainability.



Presentation of award at the Singapore Sustainability Awards 2013



Award ceremony at IAIR Awards 2014

IAIR Awards 2014 is a world-renowned award given to business corporations showing excellence in terms of sustainability and the global economy after screening by economic and financial journalists from more than 50 countries. We received this award as an electronics company that made the greatest contribution in local CO<sub>2</sub> emissions reduction through environmental protection activities, represented by energy-saving technologies such as ECONAVI (see page 45) function in household appliances, its energy solutions business, and environmental education for the next generation.

#### China

#### Initiatives to Become a Model Company in Environmental Contribution

Panasonic Corporation of China (PCN) has been directing its energies into becoming a model company in environmental contribution since 2009. As part of these efforts, it is pushing activities forward in the areas of products, manufacturing and eco-activities.

As products, we are not only working on improving the environmental performance of products through technology development, but also promoting the acquisition of the eco labels<sup>11</sup> that the Chinese government is encouraging, in order to provide customers with easy-to-understand information. In fiscal 2014, we acquired a total of 345 eco labels in a wide range of product categories, including air-conditioning units and washing machines. As manufacturing activities, the Environmental Compliance

Administrators' Meeting is held each year to ensure a thorough understanding of the environmental sustainability management policy of the Group as well as to enable manufacturing sites to learn and acquire best practices from each other. In the fiscal 2014 meeting, a total of 71 employees from manufacturing companies etc. in China attended to reinforce their environmental activities by sharing information on new developments in environmental regulations and innovative practices from their company and by building new know-how and expertise.



Group discussion at a Regional Factory Environmental Management Information Sharing Meeting



Environmental Compliance Administrators Meeting



On-site study by a waste management study group

Factory Environmental Management Information Sharing Meetings are also being held on a regional level to examine environmental issues unique to the region and foster standardization of environmental sustainability management on a higher level. At these meetings, study groups on waste management as well as on wastewater and exhaust are conducted to train specialists in factory environmental management.

Furthermore, Chinese government carries out carbon emissions trading pilot system in two provinces and five cities (Guangdong Province, Hubei Province, Beijing City, Tianjin City, Shanghai City, Chongqing City and Shenzhen City). Sanyo Energy (Beijing) Co., Ltd., Sanyo Electric (Shekou) Co., Ltd., and Panasonic Industrial Devices Taiko (Shenzhen) Co., Ltd. are included in the list of pilot enterprises. In response to this, we are accelerating our drive to cut CO<sub>2</sub> emissions in manufacturing, a measure that was already underway.



Large-scale tree-planting in the Inner Mongolia Autonomous Region

Eco-activities are being implemented on a continuing basis to achieve the goals set

in fiscal 2010 to provide environmental education to one million children over ten years and to plant one million trees over ten years. We have organized environmental education for some 200,000 children in fiscal 2014, reaching a cumulative total of over 670,000 children at the end of March 2014. In tree planting, the Panasonic China Public Forestation Project started up in the Inner Mongolia Autonomous Region in fiscal 2014, supplementing grassroots-level activities already underway in Dalian, Tianjin, Jining, Suzhou, Guangzhou, and other regions. The project aims to plant 100,000 saplings each year. In its first year (fiscal 2014), 101,600 were planted. As of the end of March 2014, a total of 298,000 trees were planted nationwide in China.

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

#### **Publication of Our China CSR Report**

In July 2013, we published the China Panasonic Sustainability Report 2012 introducing our CSR and environmental activities in China, in line with the Guidelines for the China Corporate Social Responsibility Report (CASS -CSR2.0) issued by the Corporate Social Responsibility Research Center of the Chinese Academy of Social Sciences (CASS) Institute of Economics. The report communicates to Chinese society at large the environmental and social contribution activities, etc., founded on the sustainability management of the China Panasonic Group, and is utilized for communication with our stakeholders in China. The report received a four-star rating from the CASS Corporate Social Responsibility Research Center.



China Panasonic Sustainability Report 2012

#### Award for Best Environmental Performance at Deloitte China Sustainability Awards

In February 2014, PCN received the award for the Best Environmental Performance at the Deloitte China Sustainability Awards. The awards are hosted jointly by Deloitte China, China's corporate member of the international audit network Deloitte Touche Tohmatsu Ltd. and the United Nations Development Programme (UNDP). PCN was recognized for its accomplishments in sustainability activities and information disclosure in compliance with international guidelines on CSR and environmental reports. We will continue to contribute to environmental advancement in China through the introduction of innovations in technology and products.



Presentation of Deloitte China Sustainability Awards

#### **Taiwan**

#### 'eco ideas' Declaration and Activity Results

Nine Panasonic Group companies in Taiwan announced the Taiwan 'eco ideas' Declaration in October 2011 and are presently directing their energies to achieve the targets in products, manufacturing and employee activities for fiscal 2016.

For products, we are working on improving the sales ratio for products with top-class environmental performance through consecutive releases of ECONAVI (see page 45) products. With the enhancement in the variety of ECONAVI products, the sales ratio improved from 37% (in fiscal 2012) to 48% (in fiscal 2014). As a result, the size of contribution to reducing CO<sub>2</sub> emissions through energy-saving products (see page 43) has reached 260,000 tons.

In manufacturing, activities such as improvements in production facilities and the wider use of inverters in regulating energy consumption corresponding with production levels helped reduce CO<sub>2</sub> emission in fiscal 2014 by 29.8% (over fiscal 2006). Waste reduction and exhaustive sorting has led to improving the waste recycling rate to 99.4%. In the area of employee activities, environmental action such as tree planting and beach cleaning has been expanded to upgrade the contribution to local communities.

#### Targets of the Taiwan 'eco ideas' Declaration

Items	Fiscal 2016 Targets
'eco ideas' for Lifestyles	<ul> <li>Consecutive release of ECONAVI (top-class environmental performance) products</li> <li>(1) Enhance sales ratio of these products to 50% or more</li> <li>(2) Achieve the size of contribution to reducing CO<sub>2</sub> emissions through energu-saving products to 400,000 tons (compared with the fiscal 2006 level)</li> </ul>
'eco ideas' for Business -styles	<ul> <li>Environmental contribution through production activities</li> <li>(1) Reduce CO<sub>2</sub> emissions by 5% or more (compared with fiscal 2006)</li> <li>(2) Increase the waste recycling rate to 99.3% or more</li> <li>Environmental contribution by employees activities</li> <li>(1) Enhance tree planting activities in various locations</li> <li>(2) Promote beach cleaning</li> <li>(3) Expand environmental education focusing on nurturing the next generation</li> </ul>

#### Taiwan Panasonic Showroom-Certified as an Industrial Culture Hall

The Taiwan Panasonic Group opened the Taiwan Panasonic Showroom in May 2012 to showcase advanced technologies and know-how. In addition to displays of latest products with outstanding energy-saving performance represented by our ECONAVI products, the showroom promotes the Smart Eco House as a solution that offers both comfort and eco-friendliness in everyday living. On October 1, 2013, the showroom was certified asan Industrial Culture Hall by the New Taipei City government. We plan to utilize this industrial culture center to propose a sustainable lifestyle that reduces environmental impact to its numerous visitors.

#### **Energy Solutions Offered at Exhibitions**

The Taiwan Panasonic Group has been participating in Taiwan Int'l Smart Green City Expo for three consecutive years. The Expo in fiscal 2014 held the concept of innovation with "green" and "smart" as keywords, directing toward the future of the Green City in view of latest trends relating to sustainable growth of the earth. As an example of our cutting-edge technologies, Smart Home Energy Management System was presented at the Expo as a total energy solution offering a lifestyle with both eco-friendliness and comfort. Approx. 15,000 people visited the Expo during its four-day period. Our environmental technologies were seen by a large number of visitors.



Promotion of Smart Home Energy Management System at the Panasonic booth

#### Wider Activities in Tree Planting and Beach Cleaning

The Taiwan Panasonic Group actively encourages employees to be engaged in environmental contribution activities. Tree planting and beach cleaning activities organized under the initiative of our employees and their families are drawing a growing number of volunteers each year. The tree planting held on March 9, 2014 at Mt. Jiaoban, Fuxing, Taoyuan Province, attracted 637 volunteers, or roughly



Tree planting at Mt. Jiaoban, Fuxing, Taovuan Province



Beach cleaning at Xiashe Wanli Dist, New Taipei City

1.5 times more than the previous year. The total number of trees, planted since fiscal 2011, has reached 21,613. In the beach cleaning activity organized at Xiashe Wanli Dist, New Taipei City, on November 2, 2013, 509 volunteers participated, showing steady growth in our local community contributions in Taiwan.

#### Green Brand Award from Magazine "Business Next" and Green Partner Award from the Taiwanese Government

The Taiwan Panasonic Group was recognized for its environmental sustainability management efforts and received the Top Green Brands award for the home appliances category in Taiwan's 5th Top Green Brand Survey in March 2014. The survey is sponsored by the prestigious science/technology and economic magazine "Business Next," and rates business corporations in the areas of green products and services, green policy and action, green brand



Top Green Brands award presentation



Green System Partner of IPO Award presentation ceremony

trustworthiness, and green marketing, based on online voting and screening by experts. Panasonic was the only company to win the Top Green Brands award for the fifth consecutive year.

The Taiwan Panasonic Group was also recognized for its green business initiatives in cooperation with local suppliers, and received the Green System Partner of IPO Award from Taiwan's Ministry of Economic Affairs in November 2013. This award is given to the top three foreign businesses that contribute to the development and overseas export in the Taiwanese green ICT industry, based on votes by local suppliers.

#### **Europe**

#### **Announcement of Sustainability Declaration**

Panasonic Europe Ltd. (PE) unveiled its Sustainability Declaration at IFA, the world's largest consumer electronics show, held in Berlin, Germany, in September 2013. The company expressed its determination to contribute to the development of a sustainable society together with its stakeholders by setting its action targets for CSR and the environment for fiscal 2016.

#### Targets of the Sustainable Declaration for Europe and CIS

Items	Fiscal 2016 Targets
Products requiring energy efficiency labeling*2	More than 80% of devices sold by Panasonic to be in the top two classes for energy efficiency
Environmental education for children	Environmental education to bring the total since fiscal 2011 to more than 300,000
Size of contribution in reducing CO <sub>2</sub> emissions through production activities	Reduction contribution of more than 10,000 tons a year at production sites in EU
Waste reduction in production sites within the EU	Achievement of a factory waste recycling rate of more than 99% and a 5% reduction in waste generation per unit of production (compared with fiscal 2013)
Work-life balance	Establishment and active promotion of e-work policy at sales companies

<sup>\*2</sup> Refrigerators, washing machines, clothes dryers, dishwashers, air conditioners, TVs, and lamps, including products that may be covered in the future such as vacuum cleaners and microwave ovens.

#### **Environmental Education for Children**

PE and its subsidiaries are engaged in environmental education for children in a variety of ways, once again in fiscal 2014. Workshop programs popular with children, such as making hybrid cars and solar lanterns, have been held in Germany, the Netherlands, UK, Slovakia, Greece, and other countries. Through making such devices, children gain hands-on experience that demonstrates that clean energy is generated with solar power (energy creation), that the energy created is stored in accumulator batteries (energy storage), and that wasteful electric power use must be reduced (energy saving), thus learning the importance of energy.

The Panasonic Group and UNESCO World Heritage Centre jointly organized environmental education activities for children, based on strategic partnership (see page 102). In the Global Eco Picture Diary Contest, children's drawings of eco-friendly activities that they planned and executed, done in rich colors, were submitted. At the Global Award Ceremony held at the UNESCO headquarters in Paris in December 2013, a child from Hungary won the Grand Prize. Panasonic Iberia SA organized a UNESCO World Heritage environmental learning program for more than 200 children at Basilica of Sagrada Familia in Barcelona.



UNESCO World Heritage Eco Learning Program at Basilica of Sagrada Familia

In fiscal 2014, environmental education programs were held for more than 34,000 children in Europe, reaching a total of 222,000 since fiscal 2011.

#### **CSR & Environmental Communication**

Recognizing the importance of activities to reduce environmental impact throughout the supply chain, we are engaged in continuing dialogues with our stakeholders, and also take on board the opinion of experts in our work regarding conflict minerals, human rights issues, and reducing environmental impacts. We are also communicating with our suppliers of raw materials and goods as well as our customers of parts and products to explain our CSR and environmental activities. Through these activities, we are working to meet the demands of society and our customers in the areas of CO<sub>2</sub> reduction, resources recycling, management of chemical substances, biodiversity conservation, etc.



Presentation on our activities to customers

#### **North America**

#### Presentation of Our Environmental Activities at Fortune Brainstorm Green 2013

Panasonic Corporation of North America (PNA) supported Fortune Brainstorm Green 2013 organized by Fortune in April 2013. The event draws CEOs of major business corporations, top figures from various sectors of society, investors, policy makers and environmental specialists to engage in discussion on technical innovation as well as new products and services brought on by sustainability management. Panasonic North America CEO Joe Taylor participated in two panel discussions. In "How Sustainability Drives Innovation," he reported on our practices contributing to the realization of a sustainable



CEO Joe Taylor (left) presents our activities

world through presentation of the history of environmental action by Panasonic, its social responsibility, and its products and manufacturing activities. In "The Future of Transportation," opinions were exchanged on ideas for creating a new transportation system through cooperation between the government and industrial sectors.

#### **Headquarters Building Acquires LEED Platinum Certification**

Panasonic North America's new headquarters building, which opened in July 2013, acquired LEED (Leadership in Energy & Environmental Design) Platinum certification for its interior. This is granted to structures that satisfy the highest requirements in energy conservation, CO<sub>2</sub> reduction, water conservation, etc. The new building has large windowpanes stretching from the floor to the ceiling, enabling many of the employees to work at their desks in natural light without needing to turn on so many light fixtures, thus conserving energy.



The new PNA headquarters with large windows

#### **Environmental Action in Offices and the Cafeteria**

PNA consolidated all of its printing needs at the Document Center and created a scheme in which employees are asked to confirm whether printing is truly necessary. With these actions, the company was able to cut down printing by 30% and to conserve consumption of paper, ink and energy.

Eco-awareness has extended beyond PNA employees to include cafeteria service operators in the building. The Compass Group, the food service operator providing cafeteria meals, distributed among the employees reusable lunch tote bags that can be used for takeouts. This is expected to reduce the consumption of disposable paper containers and cut down garbage by roughly nine tons a year.



Food takeout with reusable lunch tote bag

# Latin America Energy Solutions for Customers

The companies of the Panasonic Latin America Group provide eco-conscious products and solutions to create "A Better World" for its customers.

Panasonic Sales Latin America (PLAT) proposes to corporate clients facing the problem of high electricity costs that they introduce a photovoltaic power generation system both for cost-cutting and environmental appeal. PLAT presents the period of investment recovery based on actual measurement of sunlight radiation, and proposes a comprehensive solution including assurance of power output after installation. In fiscal 2014, PLAT installed a megawatt-scale photovoltaic power generation system for a factory of Hilcasa, a major apparel company.



Panasonic photovoltaic power generation system installed in a Hilcasa factory

Panasonic de Mexico, S.A. de C.V. (PANAMAX) is supporting efforts by the Mexican state of Aguascalientes to become the number-one state in eco-consciousness, and has installed a photovoltaic power generation system and LED lighting in the governor's official residence and the state guesthouse.

#### Support for Poject to Protect Endangered Wildfowl Species in Brazil

Panasonic do Brasil Limitada (PANABRAS) supports Save Brasil, a wildfowl protection NGO, to promote the protection of illegally traded wild birds and their return to nature.

The number of wildlife poached in Brazil and returned for protection is reported at 30,000 a year. Of these, wildfowl account for 90%. Due to the absence of facilities to care for creatures weakened by injury or disease, roughly 70% of the recaptured wildfowl are returned to nature without care. Therefore there is no data for the number of birds that have survived.



Workshop on bird-release procedure

For this reason, PANABRAS and Save Brasil formed a three-year partnership named Plano de Voo (Flight Project) to provide care for recaptured birds and organize surveillance of birds after their return to the wild. In fiscal 2014, the second year of the partnership, a workshop was held to study with experts the procedure for releasing birds and to specify locations where release is possible.

#### Middle East

#### **Cooperation with Abu Dhabi University**

Panasonic Marketing Middle East & Africa FZE (PMMAF) supported the First Middle East Hybrid Car Challenge 2014 held in January 2014. The event was organized to promote continual use of natural resources to develop an eco-conscious society. Sponsored by the Petroleum Institute (university in Abu Dhabi specializing in petroleum-related studies), the race is based on cruising distance of hybrid cars. Eleven teams from eight leading universities in the Middle East participated with their originally-designed vehicles. PMMAF supported the race as a sponsor of Abu Dhabi University for which it has been providing student support with a scholarship program. The University's ADU Green Gears team won the Team Safety Award for designing the safest vehicle.



Hybrid car by Abu Dhabi University

#### Earth Day Promotion of Eco-consciousness

PMMAF invites its business partners each year to a meeting presenting a summary of its mid-term plan and unveiling of its new product lineup. In fiscal 2014, roughly 500 participated in the two-day event. Since the opening day of the event coincided with global Earth Day April 22nd, eco-awareness programme supporting the cause was initiated to commemorate the day. As part of the celebrations, all the attendees pledged their support by personally signing an earth day pledge reiterating their support and commitment.



Signatures of participants on a map of the Middle East and Africas

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



#### Panasonic Eco Relay for Sustainable Earth

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 Love the Earth Citizens' Campaign (LE Campaign) in Japan since 1998, believing that only truly greenminded employees can manufacture truly green products. In 2008 we introduced 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 Sustainable Earth, which was named in October 2010 to reflect our desire to make a connection across the generations.



Logo

Panasonic ECO RELAY JAPAN (PERJ), in cooperation with the Panasonic labor union, has been working on the restoration of woodlands in Sasayama, Hyogo Prefecture, with the support of local governments and environmental NPOs since 2011. A vacation center belonging to the Panasonic Group Workers Union Association is located in the area, serving as a venue for visitors to refresh the body and mind as well as for communicating the Group's activities in nature preservation and environmental education. Presently, activities are being organized each month, chiefly in the restoration of terraced rice paddies and bamboo charcoal making. Also, reports on the current state of Sasayama's ecosystem, along with photos of activities, are being compiled and published on our website.



Employees, retirees, and their families participating in woodland restoration at Sasayama

#### **Environmental Education for Children**

In hope of the sound growth and development of children who are to become the driving force of our planet's future, as well as to maximize their potential, we believe in the importance of providing them with opportunities for learning. As such, we have been accelerating our activities for environmental education for children on a global scale since fiscal 2010.

In September 2013, as part of our activities, we organized workshops for some 120 students aged 13 to 18 for four days at IFA, an exhibition held in Berlin, Germany. At the workshop, Panasonic employees taught the students about environmental technologies. Later, the students worked on assembling hybrid cars and LED lanterns powered with alkaline and solar batteries, and gained hands-on experience of technologies in energy creation and storage.

In February 2014, a next-generation educational event was organized in cooperation with the University of California, San Diego (UCSD) and Gates Millennium Scholars, an NGO Scholarship Fund for talented students from immigrant families. More than 100 fourth-graders from Foothill Oak (FHO) Elementary School and their guardians participated in the event at the UCSD campus. The campus is equipped with Panasonic solar cells and large-scale storage batteries, and an environmental learning session was conducted through presentation of the technologies behind these products. Many of the FHO students are second-generation immigrants, and the rate of those who go on to college is low. Through the event, we presented the children with a chance



Students participating in a workshop in Berlin



FHO Elementary School students at the event

to think how college education is important for their future and also about a sustainable society as leaders in the future.

We have set our goal to provide such educational programs to 2 million children worldwide by 2018, when Panasonic celebrates its 100th anniversary. As of fiscal 2014, the number stands at roughly 528,000, and the cumulative total at approx. 1.993 million since fiscal 2010.

#### **Tree Planting Activities**

We implement tree planting activities in our drive to preserve nature as well as to boost environmental awareness both within and outside Panasonic, and have further expanded the activities to a global scale from fiscal 2008.

In fiscal 2014, employees of the Panasonic Group in China started a large-scale tree planting project in the Inner Mongolia Autonomous Region. This is part of the Panasonic China Public Forestation Project and aims at planting 100,000 trees in an area equivalent to the Tiananmen Square in Beijing. Its kickoff event took place on April 12, 2013, drawing the participation of more than 100 executives and employees of the Panasonic Group companies in China. Roughly 600 trees were planted. The project is expected to foster improvements in the local ecosystem and to prevent desertification.

On August 3, 2013, 606 people consisting of Panasonic Group employees in Thailand, their families, and former Panasonic Scholarship students engaged in volunteer work under the Panasonic Mangrove Restoration Project, a campaign organized jointly with the local Bang Saen government, in the mangroves of Chonburi Province. The project aims at the restoration of the mangrove forests towards the recovery of the coastal ecosystem and environmental preservation. Some 2,500 saplings were planted on that day.

Through these activities, roughly 119,000 trees were planted globally in fiscal 2014. The cumulative total from fiscal 2008 has now reached approx. 3.147 million.



Tree planting in the Inner Mongolia Autonomous Region



Mangrove planting in Thailand

## **Environment: Human Resource Development**



#### **Encouraging All Employees to Become Environmental Innovators**

We believe that the development of human resources is important in laying the foundations and promoting environmental sustainability management. To put this into action, a training curriculum is in place for each specialty and position. General Programs are organized for all employees to acquire environmental knowledge as well as learn about our environmental policy and activities. Specialized Programs are designed to bring employees' environmental skills to an advanced level.

General programs are held every year at each business site for employees to acquire a wide range of knowledge, such as energy problems, trends in global society, and environmental activities by Panasonic. Additionally, training catered to the distinctive features of each operation is organized to provide information directly linked to business and operational activities. Other creative initiatives that we continue include environmental sustainability education to new employees and engineering-related employees using exclusive textbooks specific to their respective job experiences and skills to enable them to practice environmental action in their job activities.

Specialized programs feature courses on environmental legislation, chemical substances management, waste management, as well as factory energy conservation diagnosis. In fiscal 2014, a total of 126 employees underwent training. The programs are not limited to employees in environment-related job functions and allow participation of related divisions in an effort to expand the scope of environmental innovators.

#### Fostering Environmental Awareness and Skills through Global Competitions

To develop leading employees with high skills as the core of environmental innovation, the Panasonic Group Manufacturing Skills Competition, which has the categories of Eco Mind Skills and Energy Conservation Diagnosis Skills, is held annually for all employees on a global scale.

The Eco Mind Skills Competition tests the participants' capabilities in overall environmental knowledge and expertise including global environmental issues and environmental sustainability management by Panasonic, as well as environmental improvement skills of proposing and implementing improvement measures that cut down environmental impact. Aiming to gain and enhance their knowledge, 780 employees competed in fiscal 2014, utilizing exclusive text materials on Eco Mind Skills Competition.

In China, which is one of the major regions where we focus business strategies on, the Eco Mind Skills Competition China has been held since fiscal 2012 at the Manufacturing Technology Learning Center (our in-house center for manufacturing education) in Hangzhou. The questions in the competition incorporate regional matters, aiming to further enhance environmental awareness of employees.

In the Energy Conservation Diagnosis Skills Competition, 66 employees participated in fiscal 2014 and competed in various fields such as airconditioning, furnace & heat, etc. In the competition, participants are required



Text materials for Eco Mind Skills Competition



Scene from the Energy Conservation Diagnosis Skills Competition

to possess both practical skills in energy conservation improvement and advanced expert knowledge in environmental technologies, and compete on determining energy losses through analysis of the state of operation of facilities and energy use. We award outstanding performers in the competition, and continue to promote further development of human resources capable of more advanced practices to raise the overall level of the company.

#### **Environment: Environmental Communication**



#### **Promoting Environmental Communication**

Panasonic has been focusing on maintaining close communications with stakeholders. We are actively engaged in environmental communication with our customers, business partners, local communities, governments, investors, employees, NGOs, experts, etc., through a variety of perspectives, including products and services, factories, and cooperation in environmental activities, as well as advertising, exhibitions, and website communication.

#### **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 preventing business risks as well as creating opportunities, through actively presenting proposals from the standpoint of manufacturing, marketing, and technology development.

#### **Environmental Promotion through 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



Partnership logo

years. We also engage in environmental education for the coming generations through World Heritage sites, aided by our 3D-related audiovisual equipment and technology.

▶ THE WORLD HERITAGE with Panasonic Special Site http://panasonic.net/promotion/worldheritage/

#### **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 2013, Japan's largest environmental exhibition to present our eco-conscious products and environmental technologies for better living, under the theme "A Better Life, A Better World." Specifically, in the products zone of our booth we installed our PanaHome model home CASART



Eco Products 2013: at our booth

ECO CORDIS (see page 53) with a photovoltaic power generation system HIT™ installed on the entire roof. The full lineup of ECONAVI products (see page 45) was displayed, with the purpose of promoting the concept of net-Zero Energy House

(ZEH) founded on energy saving and energy creation. In the environmental technology zone, we presented technologies such as "artificial photosynthesis," a technological concept of creating energy from CO<sub>2</sub>, as well as resource recycling, etc. A presentation zone was also created to hold short seminars for a wide range of customers including business visitors, consumers, and children. These seminars were well received by participants.

▶ Panasonic Center Tokyo http://panasonic.net/center/tokyo/

#### Participation in Major Exhibitions for Fiscal 2014

Exhibition	Venue	Period
IFA 2013	Berlin (Germany)	Sep. 2013
Home Care & Rehabilitation Exhibition 2013	Tokyo (Japan)	Sep. 2013
CEATEC JAPAN 2013	Tokyo (Japan)	Oct. 2013
IGEM 2013	Kuala Lumpur (Malaysia)	Oct. 2013
PV JAPAN 2013	Chiba (Japan)	Dec. 2013
Eco-Products 2013	Tokyo (Japan)	Dec. 2013
CES 2014	Las Vegas (USA)	Jan. 2014
PV EXPO 2014	Tokyo (Japan)	Feb. 2014
SECURITY SHOW 2014	Tokyo (Japan)	Mar. 2014

#### **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. In fiscal 2014, our environmental activity website was integrated with the CSR website for all-round and exhaustive corporate communication from the standpoint of sustainability. Additionally, to provide our global stakeholders with a deeper understanding of our environmental activities, special contents featuring Panasonic Group activities were created in fiscal 2014. It has been featured in 71 websites and in 37 languages. At the same time, independent initiatives undertaken in each region are also introduced in websites.

#### **Environment-related Awards**

Environmental activities by Panasonic gained recognition again in fiscal 2014, with various awards received globally.

### Major Awards in the Environmental Field (Fiscal 2014)

Cat	tegory	Presenter and awards	Specific prize	Recipient company and details	
Enviro	onmental	International Alternative Investment Review (Singapore) IAIR Award 2014	Best Company for Sustainability Electronics Global	Panasonic Asia-Pacific Pte. Ltd.	
sustainability management		Deloitte China/UNDP (China) First Deloitte China Sustainability Award	Best Environmental Performance	Panasonic Corporation of China	
		Business Next, Taiwan Eco Brand Ranking	Super Green Brand Grand Award	Panasonic Taiwan Co., Ltd.	
		Energy Conservation Center, Japan Energy Conservation Grand Prize 2013	ECCJ Chairman's Prize	Panasonic Corporation, Panasonic Appliances Company CFC-free freezer system	
		(Products and Business Models category)	ECCJ Chairman's Prize	Panasonic Corporation, Panasonic Appliances Company Tilted-drum washing machine/dryer	
		Japan Electrical Construction Association JECA FAIR 2013	Minister's Prize (Ministry of the Environment)	Panasonic Corporation, Panasonic Eco Solutions iD Series integrated LED base light system	
	Products & services	&	New Energy Foundation (Japan) New Energy Grand Prize	NEF Chairman's Prize	PanaHome Corporation CASART ECO CORDIS & FICASA ECOSOLEIL
CO <sub>2</sub>		Japan Center for Area Development Research House of the Year in Energy 2013	Special Grand Prize, Excellent Corporation Prize	PanaHome Corporation CASART ECO CORDIS	
reduction		Environmental Protection Agency (USA) Energy Star Award	Sustained Excellence	Panasonic Eco Solutions North America Kitchen ventilation fan	
		Japan Environment Association Eco Mark Award 2013	Silver Prize	Panasonic Corporation, AVC Networks Company DIGA Blu-Ray disc recorder	
	Energy conservation	Energy Conservation Center Japan	ECCJ Chairman's Prize	Panasonic Ecology Systems Co., Ltd. Cutting-edge energy conservation maintained with full employee participation activities, including senior management Factory activities	
activities & facilities	(Energy-Saving Activities category)	ECCJ Chairman's Prize	Panasonic Corporation, Appliances Company CO <sub>2</sub> reduction through development of non-heating adhesion method for IH heater top unit		
		Fuji Sankei Group 42nd Fuji Sankei Group Advertising Award	Mixed Media Category Grand Prix	Panasonic Corporation Panasonic Smart Appliances campaign	
	onmental unication	Japan Advertisers Association Inc. 53rd Advertising Competition for Ads Benefiting Consumers Awards	Newspaper Category Silver Prize	Panasonic Corporation Artificial photosynthesis technology	
		The Nikkan Kogyo Shimbun, Ltd., Japan 48th Japan Industry Advertisement Awards	Newspaper Category Group 1, 2nd place	Panasonic Corporation Artificial photosynthesis technology	

Note: Company names are given as of the time of the award.

#### **Environment: Environmental Governance**

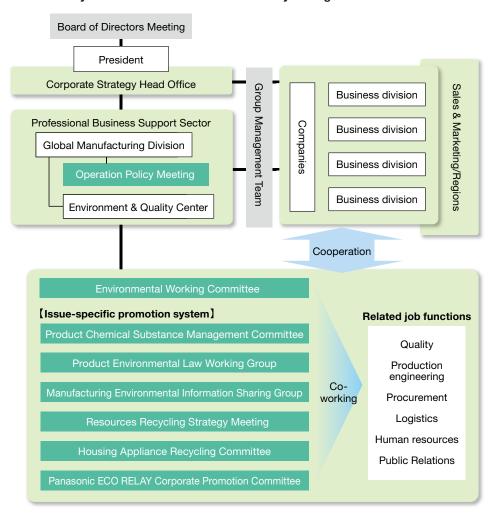


#### Corporate-wide Environmental Sustainability Management and Promotion System

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 "Global Manufacturing Division Operation Policy Meeting" led by the executive officer in charge of environmental management. Issues in promoting key environmental activities are deliberated and thoroughly communicated 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. Feedback of key annual performance data is given internally and disclosed externally after review, onsite audits, and independent assurance by a third-party, KPMG AZSA Sustainability Co., Ltd. (see page 220). Moreover, reviews and feedback from stakeholders are utilized in subsequent measures to ensure further and continuous improvement.

In addition, committees and working groups (WGs) focusing on key measures are formed, establishing a promotional structure to resolve challenges jointly with members across Companies, job functions, and Regional Headquarters that govern regions outside Japan. Specific examples include the Product Chemical Substance Management Committee which deliberates and ensures the implementation of chemical substance management guidelines, and the Product Environmental Law Working Group which engages in information sharing regarding product-related legislation and reviews actions to be taken.

#### Promotion System of Environmental Sustainability Management in Fiscal 2015



# **Environment: Environmental Management Systems**



# **Environmental Sustainability Management Founded on 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 environmental sustainability management globally, we have established EMS in all our sites including non-manufacturing sites across the world, and these sites have certified ISO14001 in principle. In October 2011, we published the Environmental Management System Establishment Guidelines that summarize EMS concepts for different business forms such as manufacturing, sales and services, and head office administration, aiming to build EMS in accordance with the Basic Rules for Environmental Affairs on a global scale. Based on the Guidelines, Group-wide action is underway to achieve the goals set out in the Green Plan 2018.

#### Obtainment of ISO 14001 Certification (as of end of March 2014)

Region	Number of certific	Total	
	Manufacturing	Non-manufacturing	Total
Japan	29	21	50
Americas	18	6	24
Europe	11	2	13
Asia Pacific, Middle East & Africa	53	11	64
China & Northeast Asia	63	5	68
Total	174	45	219

<sup>\*1</sup> 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.

http://www.panasonic.com/global/corporate/sustainability/eco/governance/ems/isolist2014.pdf

<sup>▶</sup> Obtaining of ISO 14001 Certification(PDF:281KB)

## **Environment: Environmental Risk Management**



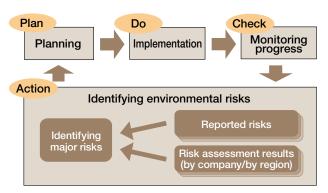
#### **Group-wide Systems to Manage Environmental Risks**

As a tool to continuously reduce environmental risks, Panasonic has established an Environmental Risk Management System specific to each Company. In accordance with the basic risk management policy for all Companies (see page 23), we promote (1) identification of environmental risks and group-wide risk management each year, and (2) ensuring quick responses to reported environmental risks.

To identify environmental risks and implement the management system, environmental risks are identified for each Company and for each region in the world each year. From these risks, environmental risks on a group-wide level are selected. The risks that show a high level of frequency or seriously impact business management are designated as major risks and prioritized in planning and executing risk-reducing measures. These measures are implemented for each major risk, and progress is monitored and followed up on a quarterly basis in the PDCA cycle.

When an environmental risk is found, the relevant Company, related job functions, and regional headquarters collaborate to promptly implement emergency measures and recurrence prevention measures adapted to the risk level. Also, the management flow in case of risk discovery is standardized to prevent the occurrence of secondary risks as a result of confusion.

#### Classification of environmental risks and countermeasure implementation



#### **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.

Furthermore, key human resources are developed for information sharing among the Companies/Business Divisions, environment-related job functions, and regional headquarters, to ensure exhaustive compliance with legislation related to factory environment management in respective countries where Panasonic manufacturing sites are located. Specifically, activities to share information as well as specialized training is conducted for factory management officers in charge of the management of chemical substances, waste, wastewater and exhaust gas, either by country or by region in Japan, Europe, China, and Southeast Asia.

In fiscal 2014, there were 2 violations of environment-related legislation in Japan and 2 outside Japan. In response, they were reported promptly to the administrative authorities, and measures to address the causes were implemented. We will continue to ensure compliance with legislation as well as prevent recurrence.

# Cases of Violations of Laws and Ordinances Related to Environmental Pollution (such as exceeding the standard legal level, etc.) in Fiscal 2014

Region	Air	Water quality	Noise	Odor	Waste	Total
Global (including Japan)	0	3	0	0	1	4
Japan	(0)	(1)	(0)	(0)	(1)	(2)

# **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 Panasonic 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 the management supervision of Panasonic 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> <li>Conduct historical surveys</li> <li>Determine and install monitoring wells at the premises' borders</li> <li>Analyze groundwater at the borders</li> <li>Check possibility of pollution from external sources</li> <li>Report to management department</li> <li>Determine the external pollution dispersion prevention methods</li> <li>Install the external pollution dispersion prevention methods</li> <li>Install assessment wells</li> <li>Begin assessments (monitoring)</li> </ol>
Thorough pollution source elimination	<ol> <li>Conduct brief status check</li> <li>Horizontal direction detailed analysis</li> <li>Vertical direction detailed analysis</li> <li>Determine the magnitude of pollution</li> <li>Discuss the areas and methods of purification</li> <li>Conduct purification and install pollution dispersion prevention measures</li> <li>Monitor pollution source (groundwater) after purification</li> <li>Report purification completion to management department</li> </ol>

#### Soil and Groundwater Pollution Surveys and Remedial Measures for Fiscal 2014

Region	Number of sites that completed remedial measures	Number of sites currently taking remedial measures
Global (including Japan)	8	60
Japan	(8)	(53)

#### 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. 1,919 of 2,281 units (84% completed) including transformers and capacitors using PCBs submitted under the early registration scheme were treated as of March 31, 2014 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.

# **Environment: Environmental Information Systems**



# **Integrated Management of Corporate Environmental Information**

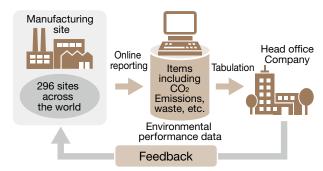
In order to implement the PDCA cycle for environmental sustainability management, it is essential to collect a significant amount of environmental performance data on energy, waste, chemical substances, and water, etc. at each business site in a prompt and accurate manner.

Panasonic has built and introduced an environmental performance system, the Eco System (Factory), to globally collect and manage environmental data from all of our business sites. With this system, the monthly size of contribution in reducing CO<sub>2</sub> emissions are managed in particular, allowing checking the progress of initiatives and identifying issues. The system plays an important role in achieving the targets of the size of contribution in reducing CO<sub>2</sub> emissions by sharing the information and taking measures.

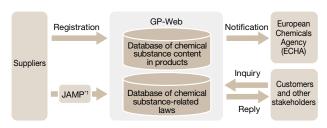
As for products, legislation relating to chemical substances in products are becoming more stringent, and communication and disclosure of information in the supply chain are mandatory under the REACH Regulation. Panasonic has developed and implements its own chemical substance management system, GP-Web, 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 in and outside Japan, and promptly respond to investigation requests by customers concerning the chemical substances used in our products.

Also, we aim to cut down CO<sub>2</sub> emissions during product use by improving the energy-saving performance of our products. For this reason, the Eco System (Product) was developed to globally assess the size of contribution in reducing CO<sub>2</sub> emissions by linking product performance data such as annual power consumption of each product category with data such as sales volume and CO<sub>2</sub> emission factors of each region. Data tabulation started on a quarterly basis in fiscal 2014.

## Mechanism of the Eco System (Factory)

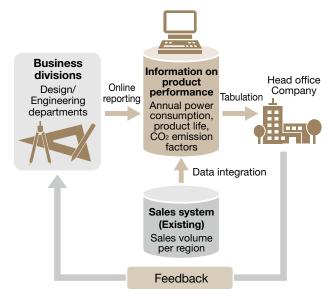


## Mechanism of the GP-Web



\*1 Joint Article Management Promotion Consortium.

#### Mechanism of the Eco System (Product)



# **Environment: Overview of Environmental Impact and Environmental Accounting**



# **Overview of Environmental Impact from Business Operation**

In order to mainly manufacture and market electrical and electronic products, Panasonic consumes petroleum and electricity as energy sources and resources as raw materials of parts and components. As a result, we emit CO2 and wastes to the environment. This diagram maps the environmental impact from our business operation from a procurement stage to recycling activities. Also, GHG throughout the entire supply chain is classified into Scope 1, Scope 2, and Scope 3 and assessed according to the GHG Protocol, the international calculation standard.

#### **Overview of Environmental Impact from Business Operation**

#### INPUT **OUTPUT Suppliers** Energy: 57 thousand TJ CO2: 2.92 million tons\*3 Renewable energy: Electricity: 3.65 million kWh\*1 4.78 billion kWh Gas: 130 million m<sup>3</sup> LPG: 21 thousand tons GHGs other than CO2 from energy use (CO2-equivalent): 0.15 million tons Kerosene: 4 thousand kl Heavy oil: 9 thousand kl Resources Total wastes including Final disposal: Production Recycled plastic: 15 thousand tons revenue-generating waste: 4,606 tons 428,018 tons Recycled Iron: 128 thousand tons Water: 42.66 million m3 Water discharged: 31.68 million m<sup>3</sup> Chemical substances: 316,106 tons\*2 Release and transfer of chemical substances: 4,504 tons\*4 Energy: 7.46 million GJ\*5 CO2: 0.81 million tons Biodiesel fuel: 74 thousand L\*6 Logistics CO2: 83 million tons Electricity: 158.2 billion kWh Product use Collected products: 155 thousand tons\*6\*7 Recycled products: 127 thousand tons\*6\*7 CRT TVs: Plasma/LCD TVs: Metals: Glass: Other: 15 thousand tons 2 thousand tons 86 thousand 7 thousand 34 thousand Air conditioners: Refrigerators/freezers: tons tons tons

Production: 296 manufacturing sites

27 thousand tons

clothes dryers:

45 thousand tons

Washing machines/

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

Product use: Lifetime power consumption (a) of major products\*8 with large amounts of energy use and CO2 emissions (b) associated therewith.

Recycling

Generated waste: 28 thousand tons\*6

a = Annual power consumption of a model sold\*9 x Sales quantity x product life\*10

66 thousand tons

PCs:

28 tons

b = Annual power consumption of a model sold\*9 x Sales quantity x product life\*10 x CO<sub>2</sub> emission factor\*11

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> Target substances include all substances in the Panasonic Group Chemical Substances Management Rank Guidelines (For Factories).

- \*3 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.
- \*4 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.)

- \*5 Intra-region outside Japan not included.
- \*6 Figures for Japan.
- \*7 Air conditioners, TVs, refrigerators/freezers, washing machines/clothes dryers, and PCs.
- \*8 Household air conditioners, commercial air conditioners, household fluorescent lamps, LED lamps, household refrigerators, commercial refrigerators, LCD TVs, plasma TVs, washing/drying machines, fully-automatic washing machines, clothes dryers, dish washer and dryers, IH cooking heaters, EcoCute, bathroom ventilator-driers, humidifiers, dehumidifiers, air purifiers, extractor fans, vending machines, electronic rice cookers, microwave ovens, warm-water washing toilets, clothing irons, hair dryers, under-rug heaters, vacuum cleaners, BD recorders, electric thermal pots, extractor hoods, etc.
- \*9 For each product category, the model that was sold in the largest quantity in the region was selected.
- \*10 Number of years during which spare parts for the product are available (defined by Panasonic).
- \*11 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 and Northeast Asia); 0.332 (Latin America); and 0.599 (Middle East & Africa).

#### GHGs from the Entire Supply Chain (by Scope)

	Category	Emissions (10,000 tons)
Scope 1*12		61
Scope 2*13		247
	1. Purchased goods and services	1,327
	2. Capital goods	61
	3. Fuel- and energy-related activities	17
	4. Upstream transportation and distribution	81
	5. Waste generated in operations	2.1
	6. Business travel	2.4 <sup>*15</sup>
	7. Employee commuting	7.7*15
Scope 3*14	8. Upstream leased assets	1.5 <sup>*15</sup>
	9. Downstream transportation and distribution	16* <sup>15</sup>
	10. Processing of sold products	_
	11. Use of sold products	8,300
	12. End-of-life treatment of sold products	138
	13. Downstream leased assets	_
	14. Franchises	_
	15. Investments	_

<sup>\*12</sup> Direct emissions from facilities owned and controlled by Panasonic (e.g. emissions from use of city gas or heavy fuel oil).

<sup>\*13</sup> Emissions from production of energy consumed at facilities owned and controlled by Panasonic.

<sup>\*14</sup> Other indirect emissions, excluding Scope 1 and Scope 2.

<sup>\*15</sup> Figures for Japan.

# **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 2014**

(million yen)

Environmental conservation in factories		
Investments*16	6,094	
Expenses*16,17	401	
Economic benefit	2,882	

<sup>\*16</sup> 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. For example, if latest manufacturing facilities are installed to improve energy efficiency and productivity, the full amount of the investment for said facilities is entered as investment value.

## **Environmental Conservation Benefits for Fiscal 2014 (in physical terms)**

Categories	Emission reduction	Reference indicator: environmental impact		
Categories	Emission reduction	Fiscal 2013	Fiscal 2014	
CO <sub>2</sub> emissions from production activities	0.21 million tons	3.13 million tons	2.92 million tons	
Human Environmental Impact	178 thousand counts	809 thousand counts	631 thousand counts	
Final disposal of waste	-1,651 tons*18	2,955 tons	4,606 tons	
Water consumption	2.47 million m <sup>3</sup>	45 million m <sup>3</sup>	43 million m <sup>3</sup>	

<sup>\*18</sup> Figure is indicated in negative since the amount of final disposal of waste was more than the previous year.

#### **Economic Effects for Customers for Fiscal 2014**

Electricity cost reduction from product usage (global)		
Reduced amount of electricity*19 64 billion kWh		
Reduced electricity costs*20	1,070 billion yen	

<sup>\*19</sup> Calculated under the same conditions as when determining the size of contribution in reducing CO<sub>2</sub> emissions through energy-saving products (see pages 43-44).

<sup>\*17</sup> Expenses include a cost of capital investment depreciation. For example, if latest energy-saving facilities were installed, the value includes depreciation for the first year but not for the second year and later.

<sup>\*20</sup> Electricity costs were set for each region based on IEA Statistics.





Era	Year	Panasonic Group	World	Japan
-1970s	1967			Basic Law for Environmental Pollution Control enacted
	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 adopted)	
	1973		• First oil shock occurred	
	1975	Environmental Management Regulations enacted		
	1979		Second oil shock occurred	Energy Conservation Law enacted
980s	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 established		
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' 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 (tool 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

Era	Year	Panasonic Group	World	Japan
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 enacted
	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 established     CF Accreditation System introduced     Panasonic Center Osaka opened     Eco & Ud 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
	2006	Environmental specialist position established     ET Manifest introduced into all manufacturing sites of Panasonic in Japan     Realized lead-free plasma display panels and introduced them to the market     Full-fledge introduction of biodiesel fuel in logistics	Restriction of Hazardous Substances (RoHS) Directive took effect in EU	Relief Law for Asbestos Victims enacted     Energy Conservation Law revised: new cargo owner obligations, widened product scope of its application, and top runner standard revision
	2007	Energy conservation activities at our factories in Malaysia approved as CDM project by the U.N.     A new environmental mark 'eco ideas' introduced     Panasonic Center Beijing opened     Environmental Forum in China held     "Declaration of Becoming an Environmentally Contributing Company in China" announced     Panasonic 'eco ideas' Strategy announced	The Fourth Assessment Report of the Intergovernment Panel on Climate Change (IPCC) released Registration, Evaluation, Authorisation and Restriction of Chemicals entered into force in EU Framework for CO2 reduction agreed at Heiligendamm Summit (G8) The Bali Road Map for the post Kyoto Protocol agreed at COP13 Administration on the Control of Pollution Caused by Electronic Information Products (China RoHS) came into effect	'Cool Earth 50' announced by Prime Minister Abe     '21st Century Environment Nation Strategy' formulated     'The Third National Biodiversity Strategy of Japan' formulated     'Ministerial ordinance partially amending the Enforcement Regulation of the Waste Management and Public Cleansing Law' promulgated     'Domestic Emissions Trading Scheme Review Committee' established     'The Second Fundamental Plan for Establishing a Sound Material-Cycle Society' formulated
	2008	Established the Corporate CO2 Reduction Promoting Committee     Held environmental exhibitions, 'eco ideas' World     Home Appliances Company announced environmental statement in which named its Kusatsu site as 'eco ideas' Factory     Announced 'eco ideas' Declaration in Europe     Established Environmental Strategy Research Center	G20 (conference of key countries' environmental and energy ministers) held     Hokkaido Toyako Summit held	Cool Earth Promotion Program announced by Prime Minister Fukuda     Mislabeling incident of waste paper pulp percentage     Long-term Energy Demand and Supply Outlook announced     Japan's Voluntary Emission Trading Scheme started
	2009	Opened the 'eco ideas' House to demonstrate a lifestyle with virtually zero CO <sub>2</sub> emissions throughout the entire house Announced the Asia Pacific 'eco ideas' Declaration Announced 'eco ideas' factories (in Czech, Malaysia, Thailand, and Singapore) Sanyo Electric joined the Panasonic Group	China WEEE law promulgated New framework for countermeasures against global warming on and after 2013 (post-Kyoto Protocol), the Cophenhagen Accord, was adopted at the COP15 (Copenhagen conference) Seeking to emerge from the Lehman collapse, countries throughout the world accelerated actions for the Green New Deal	Energy Conservation Law amended: Covered area expanded from factories to commercial sector facilities     Flat-panel TV and clothes dryer added as covered products under the Home Appliance Recycling Law     'Eco point' system started

Era	Year	Panasonic Group	World	Japan
2010s	2010	Announced "Vision looking to the 100th anniversary of our founding in 2018" Announced new midterm management plan, "Green Transformation 2012 (GT12)" Announced 'eco ideas' Declarations (Latin America, Asia Pacific, and Russia)  Established 'eco ideas' Forum 2010 in Ariake, Tokyo Launched Panasonic ECO RELAY for Sustainable Earth Kasai Green Energy Park eco-friendly factory completed?	COP10 held in Nagoya—Nagoya agreement made APEC meeting held in Yokohama Ruling party lost in US midterm election—changes in anti global warming policy Cancun agreement made in COP16—Post-Kyoto framework still to be discussed	Draft legislation of Basic Law of Global Warming Countermeasures submitted but remained in deliberation     Obligatory greenhouse gas emissions reduction started as a part of Tokyo Emissions Trading Scheme     Waste Management and Public Cleansing Law amended: self treatment regulations tightened     Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL) and Law concerning Pollutant Release and Transfer Register (PRTR) amended
	2011	Announced North America & Taiwan 'eco ideas' Declarations Announced establishment of Panasonic Dadi Dowa Summit Recycling Hangzhou Co., Ltd. Announced the Fujisawa Sustainable Smart Town Project Established Corporate Electricity Saving Division that bridges functions across the organation	Rare earth prices soared Revised RoHS directives enforced in EU 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)	Home appliance eco-point incentive program finished     The Great East Japan Earthquake     Revised Air Pollution Control Act and Water Pollution Control Act enforced     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)
	2012	Business reorganization due to full acquisition of Panasonic Electric Works and SANYO Electric     Commenced sales of Resources Recycling-oriented Product series     Terminated production of household incandescent light bulbs     Establishment of Environmental Management Group, Environment & Quality Center, Global Manufacturing Division     Communication of 'eco ideas' Declaration (Vietnam)	United Nations Conference on Sustainable Development (Rio +20) "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 Revised WEEE Directive implemented in Europe	The Recycle Resource Project, national campaign by Ministry of the Environment, commenced 2012 Japan Tax Reform Bill enacted (Environment tax came into force in October 2012) Feed-in tariff for recyclable energy put into effect
	2013		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. GRI announced G4, the next guidelines for CSR reports  Minamata Convention on Mercury to internationally regulate import and export of mercury adopted at UN conference IPCC Fifth Assessment Report (Working Group 1) announced the possibility of human activity being the principal cause of global warming observed since the mid-20th century is "extremely high." Global average surface temperature is expected to rise as high as 4.8°C  COP 19 Warsaw reaffirmed participation of all nations in the future framework of the Convention for 2020 and later. Nations were asked to submit emission pledges well in advance of 2015.	Home Appliance Recycling Law for small household appliances enforced     Basic Plan for Establishing a Recycling-Based Society implemented     Keidanren's "Action Plan Towards Low-Carbon Society" started (until FY 2021)     Amended Law Concerning the Rational Use of Energy and Amended Law Concerning the Promotion of the Measures to Cope with Global Warming established. Amended Act on the Rational Use and Management of Fluorocarbons promulgated (June)     Voluntary Action Plan by the electric and electronics industry terminated. Achieved improvement by 48% in CO <sub>2</sub> emissions per basic unit in average actual production output for fiscal 2009–2013 (compared with fiscal 1991 level) to the target of 35%     Japan announced in November its fiscal 2021 reduction target of 3.8% over fiscal 2006 and registered this with UNFCCC Office (but with a possible review of the tentative target, which does not include possible resumption of nuclear power plant operations)
	2014	Panasonic DADI DOWA Summit Recycling Hangzhou Co., Ltd., started operation     Opening of Fujisawa Sustainable Smart Town		Amended Law Concerning the Rational Use of Energy enforced

# **Customers: Management Approach**

# Constantly improving various systems and mechanisms under the themes of "improving quality," "maintaining product safety" and "enhancing customer satisfaction"

Aiming to provide "better living" for customers, Panasonic is diversifying its business model not only from the perspective of homes, but also offices, stores, automobiles, airplanes and communities, by extending beyond offering individual hardware products to deliver total solutions including software and services. Beyond home appliance users, our customers are growing dramatically through our businesses in various global industries, including automobiles and housing, which extend from advanced countries to emerging markets.

Against this backdrop, Panasonic has been improving various systems and mechanisms under the themes of "improving quality," "maintaining product safety," and "enhancing customer satisfaction" while engaging in manufacturing based on the management philosophy promoted by its founder Konosuke Matsushita "to contribute to society through its products and services while always placing the customer first" and the concept of "making quality top priority." In particular, we are making product safety a top management priority, having reflected on incidents involving FF-type kerosene heaters.

Regarding quality, Panasonic's Chief Quality Officer (CQO) is responsible for establishing quality control officers throughout the Company, at each Divisional Company and business division and in overseas companies in accordance with its basic policy on quality. In addition, we undertake initiatives to continuously improve quality by operating the Panasonic Quality Management System. In order to improve the level of product safety even higher, Panasonic undertakes related initiatives centered on the Group-wide General Product Safety Committee.

To improve customer satisfaction, we are establishing specialized organizations in Japan and overseas while expanding the voice of customers (VOC) system globally. Moreover, we are installing mechanisms that provide information security to ensure that customer, personal, financial and other categories of information are protected. Consequently, we are earning the satisfaction and trust of customers while making every possible effort to help maintain the integrity of today's information-based society.

# **Customers: Product Quality and Safety**

# **Policy**

# **Product Quality Basic Concepts**

In an effort to embody its 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.

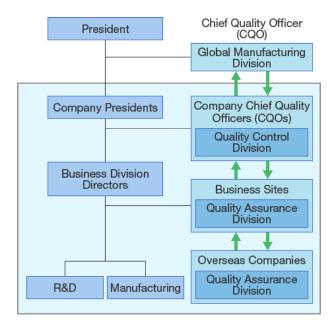
# **Responsible Executive and Framework**

Panasonic has a Chief Quality Officer (CQO) system.

Director in charge: Tsuyoshi Nomura, Managing Director (as of July 2014)

Each Company has built a self-regulated management structure that enables a self-contained quality assurance system under the supervision of CQOs.

#### **Quality Management Structure**



# **Rules and System**

## **Quality Management System**

We prepared a publication called Quality Management System Development Guidelines in 2004 so that all Panasonic Group companies can build their own self-contained quality assurance programs. Each Group company has formulated a Panasonic Quality Management System (P-QMS).\* Based on these P-QMS promotion efforts, we are strengthening initiatives to bring about ongoing quality improvements, the prevention of quality problems and a reduction in quality variations.

The Quality Management System Development Guidelines were expanded in fiscal 2013 and employed throughout fiscal 2014 to make P-QMS compatible with the systems solutions product business area, which is a growth field for Panasonic.

\* Panasonic Quality Management System (P-QMS): A mechanism for clarifying and achieving the level of quality Panasonic requires in accordance with ISO 9001 requirements and the Company's own quality assurance knowhow.

# **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 aftersales 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

## 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/
- \* Japanese only

## Strengthening the Group-wide Basis for Product Safety

For manufacturing that prioritizes product safety, we reorganized the Group-wide General Product Safety Committee in 2012, under which a Safety Technology Working Group and a Safety Standards Working Group were established. Through these working groups, 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 firmly take hold and become permanent.

Amid increasing needs for safety performance for such items as automobiles and robots, we are making coordinated efforts Group-wide to acquire safety standard certifications in order to ensure safety.

# 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 2014, they developed evaluation technology to estimate with a high degree of accuracy the deterioration and lifespan of resin. They also promoted the development of methods for testing high- voltage, high- current direct current (DC) tracking in order to prevent fires from occurring in solar photovoltaic systems and other DC equipment.

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, which is provided to manufacturing personnel. At the same time, bases for gathering risk information were set up not only in Japan but also in Europe, and a system built that enables quick measures to 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, the Safety Standards Working Group established Panasonic Corporation Safety Standards (PCSS) in 1999 as design rules that provide safeguards during product R&D.

The knowledge gained from R&D conducted into prolonged reliability technology is reflected in PCSS, which are making 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. The Group is working to improve product safety standards in order to prevent the risks that are expected to arise in new business fields. For example, the Group has formulated the Panasonic Corporation System Safety Standards (PCSSS), primarily targeting energy creation and storage management systems, in order to ensure the safety of storage battery systems, one of Panasonic's growth businesses. To ensure the safety of personal-care robots, a promising field of technology, the Group formulated the Panasonic Personal-Care Robot Safety Standards (PRSS) prior to the establishment of the international safety standard, ISO 13482.

In fiscal 2014, Panasonic strengthened its risk assessment\* initiatives and completely revised internal risk assessment guidelines in order to further enhance product safety levels.

# 3. Acquiring Certifications for International Safety Standards (Case Studies)

Panasonic Acquires Personal-Care Robot ISO 13482 Standard in February 2014

Panasonic's Risyone, which features combined bed and wheelchair functions, became the world's first personal-care robot to be certified under the international safety standard, ISO 13482. Panasonic is contributing to the development of international safety standards through its participation in projects undertaken by the New Energy and Industrial Technology Development Organization (NEDO). Looking ahead, we will develop life-assistance robots that customers can feel secure using.

Panasonic Acquires Automotive Function Safety Standard ISO 26262 Certification in February 2012

Panasonic acquired process certification for the automotive function safety standard ISO 26262 through the German third-party organization, TÜV SÜD. Consequently, our automotive equipment and device software development processes are

 $<sup>^{*} \</sup> Risk \ assessment: A \ method \ for \ appropriately \ creating \ safe \ product \ designs \ based \ on \ identifying \ and \ quantifying \ product \ risks.$ 

certified up to ASIL-D, the highest safety level under this standard.

Taking advantage of this process certification, we will contribute to the development of safe, reliable, eco-friendly, convenient and comfortable automobile society by creating even safer products.

#### \*Glossary

#### (1) ISO 13482

ISO 13482 is a unique international safety standard for personal care robots issued by the International Organization for Standardization (ISO) that covers three categories: physical assistant robots, mobile servant robots and person carrier robots.

#### (2) Function Safety

Function safety is safety realized through the activation (function) of electric/electronic devices such as microcomputers. Examples include malfunction detection, safety shutdown controls and user warnings.

#### (3) ISO 26262

ISO 26262 is an international automotive function safety standard issued on November 15, 2011. This standard prescribes four Automotive Safety Integrity Levels (ASIL): A, B, C and D.

# **Product Safety Training**

To assist in entrenching a culture that makes product safety the utmost manufacturing priority, Panasonic provides product safety training including the elearning course Basics of Product Safety to employees and organizes the Product Safety Forum to enable engineers to engage in self-study among themselves on this topic.



In 2013, Panasonic worked to ensure safety worldwide by strengthening independent region-based training activities centered on Panasonic Asia Pacific (Singapore) in South East Asia and the China Manufacturing Center in China.

Southeast Asia-based training being undertaken in Thailand

# **Quality Improvement Initiatives in Emerging Countries**

We are working to increase the compatibility of Panasonic products in emerging countries, which have differing infrastructure-related conditions in such areas as lifestyles, power sources and waterlines. To this end, we conduct fact-finding surveys of those aspects of infrastructure that easily impact quality—particularly power source quality and water quality/pressure—as well as climate conditions while establishing benchmarks by investigating the quality-related adaptability of competitor products.

Aiming to provide quality products that satisfy customers in emerging countries in the years ahead, we will build an even stronger foundation for quality companywide.







Conducting infrastructure fact-finding surveys in India

## 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.

Continuing in fiscal 2014, 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:

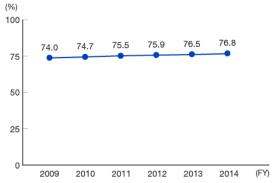
- 1. Surveys of stores that handled these products;
- 2. Door-to-door surveys of all residences in the specified areas; and 3. Reexamine past survey data.

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 2.13 million households in cold weather districts.

In fiscal 2014, we added 469 units to our list of products discovered or confirmed to have been discarded. In total, 116,826 units were recorded, bringing the percentage of total units recalled to 76.8% as of March 31, 2014.

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.

#### Ratio of Identified Units\* to Total Units Sold (%)



<sup>\*</sup> Identified units include recalled product units, units still in use after inspection and repair, units confirmed to have been disposed of by customers, etc.

Contact:	Panasonic Corporation, Corporate FF Customer Support & Management Division
Toll-free number:	0120-872-773 (dedicated line in Japan for FF-type kerosene heaters)
Hours:	9am-5pm (excluding weekends and holidays) Messages can be left on an answering service outside these hours.
Toll-free fax number:	0120-870-779 (dedicated line in Japan for FF-type kerosene heaters)

#### **Product Recall Notifications**

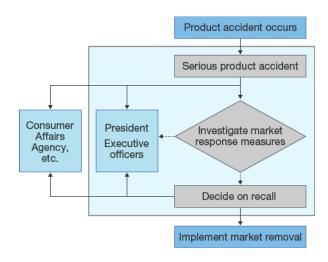
In fiscal 2014, Panasonic issued the following product recalls to prevent accidents.

- Product model: Two Vertical-drum washing and drying machines (Sanyo) with model numbers: AWD-E105ZA/E105ZB Manufacturing period: September 2005 – February 2009
  - ► Details: http://panasonic.co.jp/sanyo/news/2013/05/15-1.html
  - \* Japanese only
- Product model: Five dishwashers with a dryer (Sanyo) with model numbers: DW-S2000/S2100/SJ2000, others Manufacturing period: December 2000 November 2001
  - ► Details: http://panasonic.co.jp/sanyo/news/2013/07/19-1.html
  - \* Japanese only

# **Addressing Product-Related Accidents**

When a product-related accident occurs in the market, we immediately confirm the situation as well as analyze and verify its causes. If a product-related accident is deemed to be serious, details are promptly and accurately reported to the president and executive officers along with Consumer Affairs Agency and other relevant government bodies. At the same time, the entire Panasonic Group endeavors to implement appropriate countermeasures to ensure the safety of customers.

#### **Product Accident Response Flowchart**



#### 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. \*\*\*

<sup>\*</sup> Recall notices for additional manufacturing numbers covering the recall notice held on January 22, 2013

<sup>\*</sup> 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 (including accidents where it cannot be conclusively determined if the product is the cause) Products other than gas and kerosene equipment. Panasonic quickly publishes information about accidents that may have been caused by a product.
- \*\*\* Accidents for which it is unknown whether its products were a causal factor are determined at a meeting on product safety held by the Ministry of Economy, Trade and Industry's Consumer Affairs Council, from such accidents publicized by the Consumer Affairs Agency. Panasonic publishes information about such accidents.
- ► Information about Serious Product Accidents http://panasonic.co.jp/info\_psc/
- \*Japanese only

# **Customers: 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

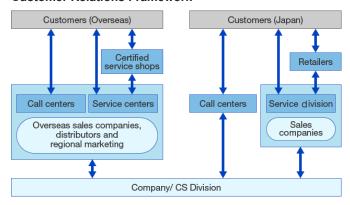
# **Responsible Executive and Framework**

## **Structure for Promoting Customer Satisfaction**

Customer service is a core business element for Panasonic, and the CS Division is charged with improving customer service quality by working with sales companies in countries and regions around the world. Developing initiatives based on sharing the collective knowledge and know-how of our Japanese and overseas personnel, the CS Division strives to provide the even higher level of 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**

Panasonic provides optimal services from the perspective of each customer from individuals to companies.

## 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.

Establishing a network of service companies nationwide, our customer engineers are always on standby, and 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 upon request.

Number of service centers operated by Panasonic Consumer Marketing Co., Ltd. 102 throughout Japan (as of March 2014)

Panasonic Eco Solutions Techno Service Co., Ltd. service bases: A network of seven nationwide bases covering all prefectures

#### **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. This includes maintaining systems for accepting parcel deliveries of products in need of repair and registering repair services via its website, and for 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

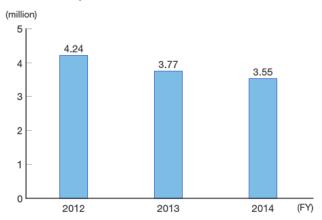
## **Consultation Services for Solving Problems Quickly**

Our Customer Care Center helps individual 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 proactively provides information about frequently asked questions (FAQs) on its website to help customers resolve issues on their own.

For corporate inquires about lighting, information equipment, electrical equipment and materials, housing equipment and materials, and energy-related products like solar power generation and battery storage, 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 (for Individual Clients)



#### **Customer Service Measures in the Commercial Appliance Field**

Our sales companies in the visuals, security, information communications, automobile, industrial air conditioning and other items in the commercial appliance fields provide integrated support, ranging from product proposals to design & installation and repair services. Our sales companies are working to improve customer service by delivering comprehensive solutions tailored to customer needs.

#### **Business-use Network Equipment**

Group 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. In so doing, Panasonic is contributing to the productivity and profitability of its customers by providing ongoing support that addresses their difficulties.

## **Automotive Equipment**

Our Group 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 2014)**

Region	Number of Repair Service Centers
Japan	102
North America	1,900
Latin America	1,375
Europe and CIS	791
South East Asia and Pacific	1,733
India, South Asia, Middle East and Africa	1,112
China and Northeast Asia	803

<sup>\*</sup> Japan: Panasonic Consumer Marketing Co., Ltd. (PCMC-CS)

# 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 is creating 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.

<sup>\*</sup> Northeast Asia: South Korea, Hong Kong and Taiwan

# **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.

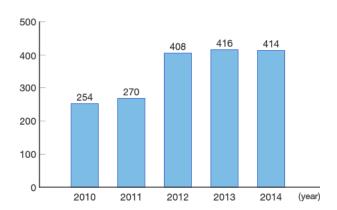
#### **Fostering a Customer-Oriented Corporate Culture**

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, 2014, 414 employees of the Panasonic Group had obtained this qualification, the highest number among Japanese companies for the fifth 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).)

#### Trends in the Number of Advisory Specialists for Consumers' Affairs System Accreditation



## **Learning from Customer Opinions (VOC Activity)**

At Panasonic, we view the Voice of Customers (VOC), which are assembled from customers feedback received by the Customer Care Center as well as contact with 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.

These VOC activities are 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



#### STEP 1

Respond to customer inquiries and issues

Our Customer Care Center responds to the inquiries and issues brought up in telephone calls and letters received from customers on a daily basis.

Marketing divisions also receive opinions from customers through salespeople and partners.

STEP 2 Analyze the customer's opinion

Customer opinions are recorded, entered into a database, and analyzed every day.



# Identify areas in need of

improvement based on customer opinions

STEP 3

Customer opinions are analyzed to identify the root of the problem, such as how easy it is to use a product or understand a user manual, and raised as possible areas in need of improvement.



Learning from our customers' opinions to improve products, user manuals, etc.

Meetings are held in divisions in charge of product development and user manuals to discuss issues that have been raised and look for ways to improve products and services.

# **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 that provide numerous consumers nationwide with opportunities 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

#### **Educational Courses for Children**

The Eco Solutions Company (an internal company) sponsors 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 2014, these classrooms were held at 199 elementary schools for 12,900 children.

## 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.

► Aijoutenken, safe and effective 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. The information available on our website is intended to help enhance 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 guizzes 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.



# **Customers: Information Security and Protection of Personal Information**

# **Policy**

# 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**

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

# Rules and System ISO 27001

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 below.

Panasonic Corporation List of business sites that have obtained ISO 27001 certification http://panasonic.co.jp/info/privacy/list.html

<sup>\*</sup>Japanese only

# **Customers: Corporate Communications in Advertising**

# **Policy**

Specifically, our aim is to provide fair and accurate information to our customers and various 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.

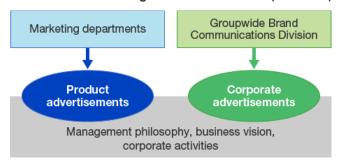
In Japan, for instance, our advertisements conform to provisions of the Law for Preventing Unjustifiable Lagniappes and Misleading Representation and other advertising laws and regulations.

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**

Mass Media Advertising Promotion Structure (Overview)



# **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: Management Approach**

# Working to improve ethical consciousness of employees in adhering to the antitrust act and preventing corruption

With brisk corporate activities on a global scale crossing national borders, scandals have frequently occurred due to insufficient awareness and oversight among related parties, in addition to intentional illicit and criminal behavior. Meanwhile, some countries and regions do not have robust legal systems, and employees working at companies that conduct important transactions in these countries and regions must remain highly conscious about these issues.

On a worldwide basis, Panasonic enforces strict adherence to laws, regulations and corporate ethics, centered on the Panasonic Code of Conduct, which covers the essentials such as the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, in order to promote fair business practices and realize a sustainable society in countries and regions around the world.

Compliance to the Code of Conduct is overseen globally through collaboration among legal affairs departments established at each Divisional Company, business division, and overseas regional headquarters, directors and executive officers in charge of adherence to the Code of Conduct, as well as managers in charge of fair trade, export control, and functional groups.

The Compliance Committee, composed of directors, executive officers and corporate auditors, steers deliberations on measures to ensure compliance with the Antitrust Act and to prevent corruption.

Panasonic has designated September as Compliance Awareness Month, during which it strives to embed awareness of ethical and legal compliance issues among employees. We also conduct a Compliance Awareness Survey during the month to assess the level of awareness of our employees around the world. 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.

In addition, Panasonic has set up hotlines at its sites inside and outside Japan, as well as a whistleblowing system for business partners, in order to prevent and quickly resolve scandals.

# **Fair Operating Practices: Policy**

# 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

#### 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.

► Click here for more information on Chapter 2: Implementing the Code in Business Operations II-3. Compliance with Laws, Regulations and Business Ethics http://panasonic.net/corporate/philosophy/code/12.html

# Fair Operating Practices: Responsible Executive and Framework

Director in charge: Jun Ishii, Managing Director (as of July 2014)

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 control, 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 in 2008 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 had rules in place since 2010 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**

In Rules Concerning Business Entertainment Provided by Suppliers, etc., Panasonic has strict rules governing business transactions 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 Panasonic Code of Conduct and Obtaining Written Pledges

Directors and executive officers are appointed at each Divisional Company, business division, subsidiary, as well as head office division and overseas 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 to follow the code 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 countries' 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**

The Panasonic Group 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 over the past few years, Compliance Awareness Month has provided an opportunity to sharpen our efforts as we 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 company presidents, business division directors and regional representatives.

We also conduct a Compliance Awareness Survey for employees 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. The Compliance Committee ensures the thorough implementation of Companywide compliance measures, such as compliance with the Antitrust Act as well as the prevention of corruption, and checks on the current status of efforts at relevant business divisions.

# **Compliance Training**

Employees undergo training on the Panasonic Code of Conduct when they enter the company, receive a promotion, and on other occasions.

In addition, 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.

In addition to the Panasonic Code of Conduct, we provide e-learning courses about compliance, including compliance with various laws and regulations.

# 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 put in place the following systems for handling the internal reporting of compliance issues.

Panasonic has a Business Ethics Hotline for both Japan and overseas; an Equal Employment Opportunity Office for reporting gender-related matters and sexual harassment; a Fair Trade Hotline for reporting monopolistic behavior; an Internal Control Promotion Office Hotline for improper accounting practices; and a Fair Business Hotline for our suppliers and customers. Moreover, there is a procedure to report financial and accounting matters to the Board of Corporate Auditors.

The Panasonic 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 (this excludes some hotlines).

Overseas, in addition to an overseas Business Ethics Hotline, Panasonic also has regional reporting systems in North America, Europe, Asia and Latin America.

Panasonic strives to create an environment that facilitates the use of hotlines, and has contracted with external, independent service companies to provide 24-hour hotlines 365 days a year in Europe.

# **Fair Operating Practices: Performance**

# **Compliance Evaluations**

## Implementation of Compliance Awareness Survey

Panasonic conducts a Compliance Awareness Survey once a year on its employees, questioning them about globally shared topics such as compliance, information security and risk management, as well as unique subjects based on conditions at each Divisional Company, business site and region. The results of the surveys are analyzed by region, company and employee's position/title, and the outcome is used in the planning of compliance-related measures as well as in solving challenges.

In fiscal 2014, we had 118,000 respondents to the survey in Japan and 37,000 overseas, for a total of 155,000 people in over 45 countries/regions that speak 18 different languages.

For example, Panasonic formulated a medium-term action plan through fiscal 2016 based on the results of the survey conducted in fiscal 2014 for Asia, which has been positioned as a strategic overseas region for the Company. Legal systems are at different stages of maturity depending on the country and region within Asia, making it a region with a high risk of corruption. In this business environment, Panasonic has strengthened operations and engaged in fair operating practices in its solutions business, including BtoB and BtoG areas. The Compliance Awareness Survey in Asia served to confirm 1) an ongoing fostering of awareness of compliance, 2) a need to reinforce compliance education, and 3) differences in compliance awareness by country. Based on these results, Panasonic has decided to incorporate into its medium-term action plan and daily business activities 1) the creation of compliance action guidelines and implementation of education campaigns at regional head offices, 2) initiatives to improve e-learning and training programs in the language of each country, and 3) measures to strengthen ties among the legal affairs divisions in the region while raising performance through compliance audits.

# Implementation of Compliance e-Learning

In fiscal 2014, employees that attended compliance-related e-learning courses numbered 23,000 in Japan and 14,000 overseas, for a grand total of 37,000 people in 27 countries/regions with 17 different languages spoken.

#### Report on Violations in Fiscal 2014

Panasonic agreed with the U.S. Department of Justice and the Competition Bureau Canada to pay fines for violating antitrust laws regarding certain automotive components for certain customers. In addition, Panasonic also agreed to pay fines to the U.S. Department of Justice for a subsidiary that violated U.S. antitrust laws relating to the cylindrical lithium ion battery cells used in notebook computer battery packs.

The Panasonic Group takes these matters seriously and has taken steps to strengthen its compliance programs. It is the policy of all companies within the Panasonic Group to comply with all applicable laws and regulations, including U.S. antitrust laws.

Fair Operating Practices: Rules & System "Fair Trade" http://www.panasonic.com/global/corporate/sustainability/fair\_practices/regulation/

# **Human Rights: Management Approach**

# Treating not just our employees, but our customers and stakeholders with the utmost concern and respect is the underlying principle of our business activities

Business and human rights issues have attracted vigorous debate since the surge in economic activities that extend well beyond traditional national boundaries in the 1990s. More recently in 2011, the United Nations issued its "Guiding Principles on Business and Human Rights" (generally referred to as the Ruggie Framework). A substantial number of companies around the world have incorporated this framework into their efforts to promote business development.

Against this backdrop, Panasonic also engages in business activities that place the utmost emphasis on respecting human rights. This emphasis extends across every facet of the Company's global business endeavors from the recruitment of personnel from around the world to the worldwide supply of a wealth of products and services in partnerships with worldwide suppliers.

Panasonic has clearly stipulated the need to respect human rights and do its best to understand, acknowledge and respect the diverse cultures, religions, mindsets, laws and regulations of people in the different countries and regions where the Company conducts its business in the Panasonic Code of Conduct. Moreover, 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 also been incorporated into the Company's Code of Conduct.

Meanwhile, 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. Based on these initiatives, the Company is adopting the proactive approach of accurately reflecting global trends and conditions into its management and operating activities.

In concert with its employees as well as its worldwide network of suppliers and business partners, Panasonic is looking to gain an accurate understanding of the laws and labor practices of each country. At the same time, the Company will pursue business activities while working to consistently improve labor-management relations.

# **Human Rights: Policy**

# **Respecting Fundamental Human Rights**

# **Policy**

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 have incorporated fundamental respect for human rights into our core values within the Panasonic Code of Conduct.

# Panasonic Code of Conduct (excerpts)

**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

# **Fundamental Human Rights of Employees**

Guided by the Panasonic Code of Conduct, the Company works diligently to build constructive relationships and resolve any issues with employees.

#### Panasonic Code of Conduct (excerpts)

#### **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

#### Major Constituents of Panasonic's Policy on Respecting Fundamental Human Rights

The structure of the Company's concept regarding respect for fundamental human rights is presented in the following diagram.

#### Major Constituents of Panasonic's Policy on Respecting Fundamental Human Rights



# **Human Rights: Responsible Executive and Framework**

Director in charge: Jun Ishii, Managing Director (as of July 2014)

Departments in charge: Human Resources & Industrial Relations Group

# **Human Rights: Rules and System**

#### Prohibition of Child Labor and Forced Labor

#### **Prohibition of Child Labor**

In its employee hiring process, Panasonic follows the laws and regulations of the country and strictly monitors compliance with respect to fundamental human rights.

The Company takes comprehensive steps to verify the ages of employees in China and Asia to avoid any possibility of employing child labor.

#### **Respect for Human Rights of Immigrant Workers**

Panasonic hires immigrant workers both on a full-time and temporary staffing basis in accordance with the laws and regulations of each country. This is to ensure that work is not undertaken against an individual's will and that work conditions remain fair and equal.

#### **Prohibition of Discrimination and Humane Treatment**

#### **Hiring Rules**

Panasonic has stipulated in its hiring rules and regulations that its hiring process will be based on the qualifications, skills and ambitions of applicants, without regard to their age, gender or nationality. To ensure strict adherence to the provisions of these rules, 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**

Panasonic has clearly stipulated in its Employee Work Rules that employees must respect human rights and that illegal behavior is strictly prohibited. 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.

#### **Initiatives Aimed at Ensuring Equal Employment**

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 as a point of contact for employees to seek advice regarding issues relating to human rights including sexual discrimination. In addition to assigning full-time consultants, consultation desks have been established at each Divisional Company and business division 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.

#### Stance toward Financial Penalties in connection with Disciplinary Rules

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**

Based on the Labor Standards Act and union agreements, Panasonic has clarified core employment terms and conditions including work hours, break times, overtime work, holidays and vacations in its Rules of Employment.

#### **Rules about Employee Compensation**

Based on the Labor Standards Act and union agreements, Panasonic has put in place Employee Salary Regulations that clarify core issues relating to compensation including wages and salaries, allowances for commuting expenses, etc., bonuses and other forms of one-time compensation, and retirement benefits.

#### **Management of Work Hours**

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 human resources, and encourage employees to take better care of their health.

#### **Management of Wages**

To ensure the proper payment of salaries and wages to employees, labor unions in Japan 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 has established rules to ensure strict adherence to all wage-related laws and regulations, including those related to the minimum wage, statutory benefits, and excessive work, on an individual country basis. Managing wages in accordance with these rules, 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

#### **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, 2014, the Panasonic Group Workers Unions Association had a total of 98,653 members.

In the context of employee participation in management's decision-making process, important management issues at Panasonic 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.

While a minimum notification period has not been stipulated, in the event that an important matter such as the implementation of a structural reform requiring deliberation should arise, thoroughgoing deliberations shall be undertaken at each level on a daily basis until a reasonable settlement is reached between management and labor after the application is made.

#### **Europe**

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 2014, 35 representatives from labor and 14 representatives from management gathered in Amsterdam, the Netherlands, and had lively discussions about management strategy and business issues, exchanging information and opinions.

\* EU directive: 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). While these labor associations have not been organized on an integrated Group-wide basis, efforts are being made to establish amicable relations between labor and management on a company unit basis.

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.

# The Status of Initiatives Aimed at Meeting Global Standards as well as Statutory and Regulatory Requirements

#### **Our Approach to ILO Fundamental Labor Standards**

The International Labour Organization (ILO) has identified the following eight conventions across four fields as the core labor standards that warrant absolute compliance. Please refer to the relevant website for details regarding Panasonic's compliance with these conventions.

#### 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://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation04

#### **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://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation01

#### **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://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation01

#### **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://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation02

#### 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

#### 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.

#### 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. Information on the status of the Company's efforts is posted on the following website.

#### 1.Child Labor

▶ Rules and System: "Prohibition of Child Labor and Forced Labor"

http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation01

#### 2.Forced & Compulsory Labor

► Rules and System: "Prohibition of Child Labor and Forced Labor"

http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation01

#### 3.Health & Safety

► Employees / Rules and System: "Occupational Safety and Health"

http://www.panasonic.com/global/corporate/sustainability/employee/safety/

#### 4. Freedom of Association & Right to Collective Bargaining

▶ Rules and System: "Respect for Freedom of Association, Right to Collective Bargaining"

http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation04

#### 5.Discrimination

▶ Rules and System: "Prohibition of Discrimination and Humane Treatment"

http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation02

#### 6. Disciplinary Practices

▶ Rules and System: "Prohibition of Discrimination and Humane Treatment"

 $http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/\#regulation02$ 

#### 7. Working Hours

▶ Rules and System: "Management of Work Hours and Wages"

 $http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/\#regulation03$ 

#### 8.Remuneration

▶ Rules and System: "Management of Work Hours and Wages"

 $http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/\#regulation03$ 

# **Human Rights: Performance Evaluation and Development**

# **Code of Conduct Training**

Panasonic conducts training on the issue of human rights as stipulated in its Code of Conduct. In addition to training for employees who have newly entered the Company, staff participate in periodic training at the time of each promotion.

► Fair Operating Practices; Performance Evaluation and Development http://www.panasonic.com/global/corporate/sustainability/fair\_practices/assessment/

#### **Overseas Human Resources and Labor Assessment**

In promoting its business in each country throughout the world, Panasonic demonstrates its respect for human rights by adhering strictly to the laws and regulations of each country and ensuring a thorough understanding of its Code of Conduct.

In addition, Panasonic introduced its overseas human resources and labor assessment system in 2007 to identify, understand and resolve issues relating to overseas human resources and labor management. As a part of this assessment system, a survey, which contains a checklist of approximately 300 items, is undertaken to ascertain whether labor management is properly conducted and consistent with local labor laws as well as local employment systems and practices. The survey also helps to identify whether there are any potential labor-related risk factors that may have a detrimental effect on business or give rise to trouble.

After local companies undertake a self-assessment based on this checklist, assessors or officers charged with assessment responsibility from the relevant company or business division in Japan completes a final check with the support of regional headquarters. Assessor leaders (generally personnel officers) play a leading role in resolving any issues that are identified by the assessment. Every effort is made to enhance the level of labor management. Assessor training courses are held regularly to develop assessors and systematically improve their checking skills.

Assessments have been conducted at 20 companies in China, 13 companies in Asia and four companies in other regions for a total of 37 bases up to fiscal 2014.

Looking ahead, we will enhance our labor management capabilities by promoting close collaboration between Japan and overseas countries. In this manner, we will further deepen the respect we hold for human rights throughout our business as a whole.

# **Human Rights: Performance**

# **Overseas Human Resources and Labor Assessment**

Number of bases at which assessments have been conducted between fiscal 2008 and fiscal 2014 (cumulative total): 37 bases

(China: 20; Asia:13; other regions: 4)

# **Equal Employment Opportunity Office**

The Equal Employment Opportunity Office fields the inquiries and concerns of employees concerning equal employment opportunities and a wide range of related issues. At the same time, the office conducts surveys and analyzes information as the basis of efforts aimed at resolving workplace issues and creating a comfortable working environment. For example, the Company conducted a training session for managers in fiscal 2014 in an effort to reinvigorate Panasonic's workplace culture. After completing the session, 97% of participants commented in a post-seminar survey that the training helped to raise awareness. In addition to such positive comments from respondents as "I was able to again recognize the importance of the initial response and to better understand the details of essential measures," "the seminar was an excellent opportunity to reassess my own language and behavior" and "I would like to work with colleagues put in place a workplace environment of mutual respect and communication," the Company received various proposals to improve the activities of the office. Proposals included the need to expand the scope of training and to increase the frequency of seminars held.

# **Labor Practices: Management Approach**

# Based on our management philosophy, "Develop people before making products," we promote a corporate culture in which every employee can display his or her abilities.

"People" are the source of growth for all companies. Accordingly, without a trained staff, business expansion is impossible. Panasonic gathers together men and women of differing ages and nationalities, and fosters an atmosphere to enable them to reach their full potential, which is indispensable for ceaselessly creating innovative value.

Panasonic maintains the management philosophy "People are the foundation of business. Develop people before making products." Recognizing the importance of human resource development since its foundation, Panasonic opened the Matsushita Electric Staff Training School in 1934. This recognition is currently specified in the Panasonic Code of Conduct: "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." We make every effort to promote this principle in Group companies both in Japan and overseas.

Based on this concept, we apply our worldwide "Human Resources Development Policy" to promote specific personnel training programs. Included in this policy, "Requirements for All Panasonic Group Employees" and "Basic Guidelines for Managers" clearly specify helpful hints to managers in this area.

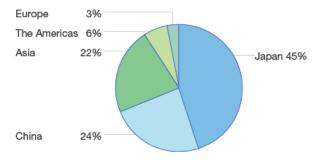
In addition, Panasonic has positioned "Promoting Diversity" as an important management policy and established the "Global Diversity Policy" in order to create new value by enabling its diverse global personnel to fully utilize their various talents. Putting these policies into action, we seek the best qualified people for each of our businesses irrespective of age, gender, nationality, and then provide training, systematic career development and appointment, while promoting the global unification of Panasonic's personnel systems.

Maintaining safe workplaces in which employees feel comfortable is a key responsibility of companies. Panasonic has established the Activity Guidelines for Occupational Safety and Health Program. Included in this is the "Occupational Safety and Health Declaration," which states: "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." In addition, Panasonic is developing on a global scale an Occupational Safety and Health Management System that adopts OHSAS 18001, the international standard for occupational health and safety, as its applicable standard, as well as obtaining external OHSAS 18001 certification where applicable.

# **Labor Practices: Employment Status**

Consolidated global workforce: 271,789 (as of March 31, 2014)

#### Ratio of Workforce by Region



# **Labor Practices: Policy**

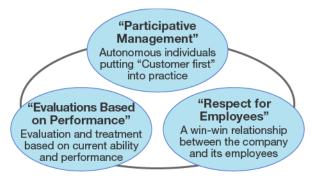
# **Basic Approach of Human Resources**

"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.

Our approach to human resources is based on one of the elements of our management philosophy: "People are the foundation of business. Develop people before making products"



# **Labor Practices: Human Resources Development**

# **Policy**

#### Panasonic Code of Conduct (Excerpt)

Panasonic outlines its approach to human resources development in Chapter 3: Employee Relations of the 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

#### **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" in 2012, which contains the basic philosophy in more understandable phrases and has been made more concise.

Panasonic provides helpful hints to managers through the "Requirements for All Panasonic Group Employees"—which includes "Always show challenging spirit," "Keep thinking and acting innovatively" and "Respect diversity and inclusion"—and the "Basic Guidelines for Managers"—which includes "Show clear leadership based on strong beliefs," "Encourage others to develop themselves," "Create workplaces where diversity is valued and respected" and "Appreciate staff members for their efforts."

The Human Resources Development 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: Jun Ishii, Managing Director (as of July 2014)

Centers on the division; Human Resources Development Company and Headquarters provides support for occupational skill development

#### **Human Resources Development Promotion Framework**



#### Organization Framework of the Human Resources Development Company

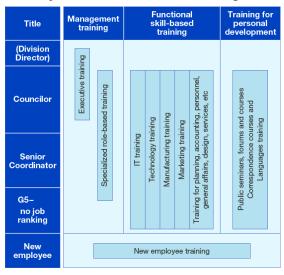


# **Rules and System**

#### **Basic System for Education and Training**

Panasonic's education and training system is for employees at all levels and consists of management training, functional skill-based training and training for personal development.

#### **Basic System for Education and Training**



#### Panasonic's Human Resources Development Company (HRDC)

Panasonic established HRDC to provide employees at every level of the organization with training and education.

Training is divided into four broad areas: (1) Management, (2) technology, (3) manufacturing and (4) marketing. For example, Management Training is dedicated to training Panasonic's leadership with the principles required to implement our company's management philosophy. As part of this, 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 carries out specialist training in the following three areas.

Technology Training

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

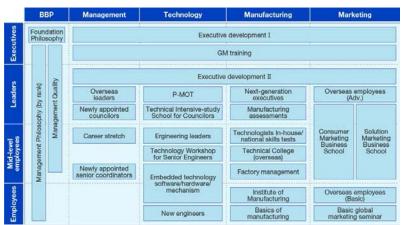
· Manufacturing Training

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

#### **Training Curriculum Structure at HRDC**



# **Performance Evaluation and Development**

#### **Numbers of Training Participants and Training Days**

In fiscal 2014, the total number of people who attended the Human Resources Development Company was approx. 77,100 people days.\* By job category, the approximate number of people days of attendance were as follows:

Global management training: 9,500 Corporate technology training: 32,300

Manufacturing training: 23,500

Marketing development training: 4,000

Skill acquisition training: 7,800

#### **Career Creation Program**

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 encourage employees to think about how to raise their own value and create their own careers.

As part of our efforts, we established the Career Creation Program to assist in internal recruitment and offer employees challenging opportunities. This program includes e-Challenge (Skill-Based Recruiting) for business divisions in need of new personnel to recruit people with the necessary skills from within the company, and 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.

#### **Measuring the Effects of Training**

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 example, in order to strengthen Panasonic's manufacturing capabilities, follow-up surveys are conducted at manufacturing facilities that participated in manufacturing assessor training courses to quantitatively calculate reductions in production lead times and subsequent decreases in inventories. This is one method we use to measure the effectiveness of our training programs.

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.

#### **Reflecting Employee Awareness**

As part of its efforts to improve employee satisfaction, Panasonic implements annual employee opinion surveys, the results of which are reflected in its training programs. For instance, the fiscal 2014 survey revealed a decline in employee confidence regarding the skills necessary to carry out their duties amid changing business operations and increasing globalization. Against this backdrop, Panasonic is developing and implementing training programs that enable employees to continue carrying out their duties with a sense of enthusiasm, even in new fields that require experience and skills different from before.

<sup>\*</sup> People days: The No. of people multiplied by the No. of days

# **Labor Practices: Promoting Diversity**

#### **Policy**

#### Panasonic Code of Conduct (Excerpt)

The Company has established the Panasonic Code of Conduct in conformity with its respect for employee personalities and individuality along with its recognition of diversity.

#### **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

#### **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.

In fiscal 2011, this approach was summarized in our Global Diversity Policy. We are engaging in activities both globally and Group-wide.

#### **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. 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: Jun Ishii, Managing Director (as of July 2014)

Nao Kanamori: diversity promotion manager, Human Resources & Industrial Relations Group (as of July 2014)

#### **Diversity Promotion Manager**

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.

In 2006, the Corporate Diversity Promotion Division was established and since then its focus areas have become wide ranging, extending beyond gender to include differences in age and nationality. Currently, the Human Resources & Industrial Relations Group maintains a diversity promotion manager who implements measures intended to create a highly diversified workplace culture centered on supporting active roles for female employees.

# **Rules and System**

#### Initiatives to Maintain a Good Work-Life Balance that Supports Diverse Working Styles

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.4 in Nikkei Shimbun's <Best Companies to Work at in 2013>

#### **Promoting Diverse Work Styles e-Work Program**

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.

#### Global Personnel Appointment and Promotion 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. Irrespective of age, gender, nationality, Panasonic recruits and trains the best qualified people, and then engages in systematic career development as well as offers opportunities for promotion.

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, we conduct surveys to gain an objective understanding of each management candidate's individual strengths and weaknesses in leadership and ability. In so doing, we are focusing on issues and education recognized by both the Company and individual to overcome any deficiencies with an eye toward bolstering measures aimed appointing individuals to a senior management post. Such measures will enable us to develop personnel who possess a high degree of awareness and motivation.

#### Strengthening the Review Process for Getting to Know, Train and Appoint Human Resources

With regard to career development for successor candidates for important posts, we have set up an objective and transparent system (Talent Management Committee). This committee strengthens the process for getting to know, training and appointing human resources regardless of age, gender or nationality.

#### Implementation of Post Evaluation

Panasonic maintains systems to quantitatively evaluate 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 have set up and 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 plan to 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.

#### Initiatives to Create Mutual Understanding and Understanding of Social Issues

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.

Leveraging training related to Panasonic's management philosophy and business policy conducted in all countries and regions, we will continue to promote and enhance employee training programs that deepen mutual understanding on a global scale. In Europe, we are conducting the two-year Talent for Tomorrow (TfT) personnel training program. As one part of this program, participating 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.

#### **Outline of Human Resources Development Policy**

► Employees / Employee Training and Development: "Human Resources Development Policy" http://www.panasonic.com/global/corporate/sustainability/employee/development/

# **Performance Evaluation and Development**

#### "Wage by Job" System

In 1966, we adopted the "wage by job" system based on work ratings. Our reward structure does not discriminate by gender.

#### **Diversity Promotion Indicators Derived from Employee Opinion Surveys**

We measure the progress of our diversity promotion initiatives from the perspectives of two indicators: "diversity of human resources," and "a workplace culture brimming over 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 employee opinion surveys. More specifically, we survey items to establish priorities such as open communication and mutual learning from others as important items for creating a culture over-brimming with diversity from the survey items and work to ensure improvements to any points.

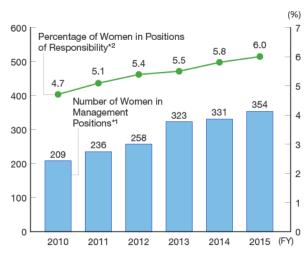
#### **Participation of Women in Management**

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, the first female director was appointed in fiscal 2014. 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.

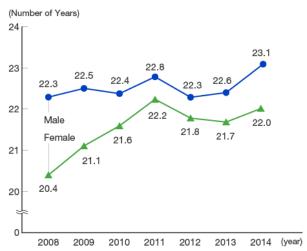
#### Number of Women in Management Positions, Percentage of Women in Positions of Responsibility



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. [SANYO], 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, 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, and including the former PEW from 2012)

#### **Diversity in the United States**

Panasonic provides Mutual Respect training for newly hired employees. This face to face training is designed to prevent harassment in the workplace and help employees understand what the Company means by an open and fair workplace environment. Participants learn to build relationships of respect with colleagues, customers and business partners. The Equal Employment Opportunity policies are covered extensively during the training. Additionally, employees are required to complete a slate of compliance related online training classes (Panasonic Legal Awareness on the Net "PLAN"). This training deepens knowledge of laws related to discrimination in employment.

To achieve a competitive advantage, Panasonic depends on the diverse ideas and collective talents of its employees. In understanding that inclusion and diversity naturally generate creativity and innovation, the Company is committed to maintaining a workforce that is as diverse as it customers, business partners and the communities in which it services.

#### PNA Demographics Percentages as of April 1, 2014\*

Male	Female	White	Black or African America	Hispanic or Latino	Asian	Native Hawaiian and Other Pacific Islander	Two or More Races	American Indian and Alaska Native
Officials and Managers								
75.21%	24.79%	73.91%	4.96%	5.43%	15.11%	0.12%	0.47%	0%
Professionals								
64.85%	35.15%	52.16%	10.28%	10.15%	26.90%	0%	0.38%	0.13%
Technicians								
89.32%	10.68%	63.11%	22.33%	4.85%	7.77%	0%	1.94%	0%
Sales Workers								
83.68%	16.32%	86.14%	3.36%	4.62%	5.46%	0%	0.42%	0%

<sup>\*</sup> Total of PNA HQ and other 16 sites in the U.S.

Note: The race and ethnicity groups are pursuant to U.S. Bureau of Labor Statistics. People whose ethnicity is identified as Hispanic or Latino may be of any race.

#### **Creating Comfortable Workplaces for Those with Disabilities**

As of June 2013, the number of employees with disabilities represented 2.15% of Panasonic Corporation's workforce in Japan. On a total Group basis, this figure was 2.17%, higher than the national average of 1.76% and legally mandated quota of 2.0%.

#### <Ratio of Employees with Disabilities> (Japan)

	June 2008	June 2009	June 2010	June 2011	June 2012	June 2013
Panasonic Corporation	1.92%	1.93%	2.01%	2.07%	2.04%	2.15%
Major group companies	2.27%	2.16%	2.10%	2.08%	2.11%	2.21%
Group total	2.05%	2.00%	2.07%	2.08%	2.06%	2.17%

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.

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.

In addition to these subsidiaries, at the Eco Solutions Company, they promote the development of workplaces that enable people with disabilities to flourish in by implementing 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, the Panasonic Group is committed to promoting the independence of those with disabilities and their active participation in society.

#### Special Subsidiary Companies (Number of Employees as of June 2013)

Company	Established	Number of employees (employees with disabilities)	Business
Panasonic Kibi Co., Ltd.	1980	85 (34)	Assembly of LCD units for video cameras, assembly of video accessories
Panasonic Katano Co., Ltd.	1981	39 (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
Sanyo Heart Ecology, Co., Ltd.	1998	96 (53)	Growing and sales of orchids, collection and delivery of in-house mail
Harima SANYO Industry Co., Ltd.	1982	47 (25)	Assembly of vacuum cleaner parts, environmental maintenance on the premises
Sendai SANYO industry Co., Ltd.	1992	42 (15)	Assembly of vacuum cleaner parts, environmental maintenance on the premises

#### Our Response to an Ageing Society and Hiring of the Elderly

Panasonic has been consistently ahead of the times in Japanese society with regard to policies and support structure related to the elderly, as exemplified by the extension of the mandatory retirement age to 60 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 has established new 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.

# **Labor Practices: Health and Safety**

# **Policy**

#### Panasonic Code of Conduct (Excerpt)

Taking into consideration the health of its employees, the Company works to ensure a safe and comfortable workplace environment in accordance with the 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

#### Panasonic Occupational Safety and Health Charter

Under the Panasonic Occupational Safety and Health Charter, the Company makes exacting efforts to adhere to the Occupational Safety and Health Declaration while clarifying the details of measures involving the Activity Guidelines for Occupational Safety and Health Program's eight items.

#### **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

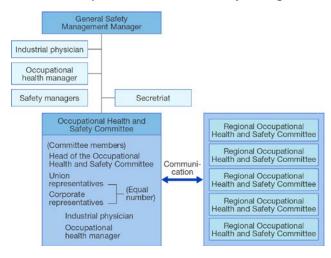
Each business unit should provide its employees and those of its business partners on its premises with education and training in accordance with the occupational safety and health management program, and ensure that all relevant people are kept informed of and familiarized with the program's charter and management system.

#### Responsible Executive and Framework

Director in charge: Jun Ishii, Managing Director (as of July 2014)

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 establishes regulations that take into 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.

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 at workplaces throughout Japan. 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. In addition, 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.

OHSAS-certified Chinese and Japanese business sites are as follows.

#### **OHSAS Certification Status at Business Sites in China**

		OHSAS18001			
No	Company	Certification Status	Certification obtained		
1	Panasonic Appliances Washing Machine (Hangzhou) Co., Ltd.	Certified	Oct-99		
2	Panasonic Wanbao Appliances Electric Iron (Guangzhou) Co., Ltd.	Certified	Jul-03		
3	Panasonic Appliances Air-Conditioning (Guangzhou) Co., Ltd.	Certified	Oct- 03		
4	Panasonic Refrigeration Devices (Wuxi) Co., Ltd.	Certified	Jul-07		
5	Panasonic Appliances Microwave Oven (Shanghai) Co., Ltd.	Certified	Oct-09		
6	Panasonic Home Appliances (Hangzhou) Co., Ltd.	Certified	Oct-99		
7	Panasonic Wanbao Appliances Compressor (Guangzhou) Co., Ltd.	Certified	Jan-05		
8	Panasonic Motor (Zhuhai) Co., Ltd.	Certified	Jan-06		
9	Panasonic Appliances Motor (Hangzhou) Co., Ltd.	Certified	Feb-07		
10	Panasonic Home Appliances Refrigerator (Wuxi) Co., Ltd.	Certified	Aug-08		
11	Panasonic Industrial Devices (Qingdao) Co., Ltd.	Certified	Jan-09		
12	Panasonic Electronic Devices (Jiangmen) Co., Ltd.	Certified	Aug-10		
13	Panasonic Industrial Devices (Tianjin) Co., Ltd.	Certified	Mar-12		
14	Panasonic Energy (Wuxi) Co., Ltd.	Certified	Dec-07		
15	Panasonic Storage Battery (Shenyang) Co., Ltd.	Certified	Dec-01		
16	Panasonic Industrial Devices (Shanghai) Co., Ltd.	Certified	Dec-04		
17	Panasonic Industrial Devices Discrete Semiconductor (Suzhou) Co., Ltd.	Certified	Nov-09		
18	Panasonic Semiconductor (Suzhou) Co., Ltd.	Certified	Jan-06		
19	Panasonic Automotive Systems Dalian Co., Ltd.	Certified	Mar-07		
20	China Hualu Panasonic AVC Networks Co., Ltd.	Certified	Jul-02		
21	Panasonic AVC Networks Xiamen Co., Ltd.	Certified	Aug-03		
22	Panasonic AVC Networks Shandong Co., Ltd.	Certified	Mar-13		
23	Panasonic System Networks (Zhuhai) Co., Ltd.	Certified	Feb-13		
24	Panasonic System Networks (Suzhou) Co., Ltd.	Certified	Jul-03		
25	Panasonic System Networks (Dalian) Co., Ltd.	Certified	Jan-13		
26	Panasonic Manufacturing (Xiamen) Co., Ltd.	Certified	Dec-06		
27	Panasonic Factory Solutions Suzhou Co., Ltd.	Certified	Apr-07		
28	Panasonic Potevio Mobile Communications Beijing Co., Ltd.	Certified	Nov-12		
29	Panasonic Ecology Systems Guangdong Co., Ltd.	Certified	Feb-07		
30	Panasonic Ecology Systems Guangdong Co., Ltd. Beijing Branch	Certified	Mar-08		
31	Panasonic Welding Systems (Tangshan) Co., Ltd.	Certified	Mar-08		
32	Panasonic Lighting (Beijing) Co., Ltd.	Certified	Dec-06		
33	Panasonic Appliances Rice Cooker (Hangzhou) Co., Ltd.	Certified	Apr-07		
34	Panasonic Appliances (Hangzhou) (Export Processing Zone) Co., Ltd.	Certified	Apr-07		
35	SANYO ENERGY(BEIJING) Co., Ltd.	Certified	Dec-10		
36	SANYO ENERGY(SUZHOU) Co., Ltd.	Certified	Oct-05		

<sup>\*</sup> OHSAS 18001: An international standard that establishes regulatory obligations for occupational health and safety management systems.

Automotive & Industrial Systems Company (AIS) Table of OHSAS Certification Status

Business Group	Business Site		Period
240000 0.04p	20011000 0110	Organization	Validit
Electronic Device	AIS (Kadoma)	JQA	Dec-15
	Capacitor Business Division (Uji)	JQA	Dec-15
	Capacitor Business Division (Yamaguchi)	JQA	Dec-15
	Capacitor Business Division (Matsue)	JQA	Dec-15
	Capacitor Business Division (Tonami)	JQA	Dec-15
	SANYO Electric Co., Ltd. AIS Division (Uji)	JQA	Dec-15
	Printed Circuit Board Business Division (Kadoma)	JQA	Dec-15
	Printed Circuit Board Business Division (Mastusaka)	JQA	Dec-15
	Panasonic Industrial Devices Yamanashi Co., Ltd. (Minami-Alps)	JQA	Dec-15
	Circuit Components Business Division (Fukui)	JQA	Dec-15
	Circuit Components Business Division (Awara)	JQA	Dec-15
	Circuit Components Business Division (Fukui)	JQA	Dec-15
	Circuit Components Business Division (Kadoma)	JQA	Dec-15
	Circuit Components Business Division (Toyooka)	JQA	Dec-15
	Circuit Components Business Division (Chitose)	JQA	Dec-15
	Panasonic Industrial Devices Nitto Co., Ltd. (Kyotanabe)	JQA	Dec-15
	Electromechanical Components Business Division (Kadoma)	JQA	Dec-15
	Electromechanical Components Business Division (Tsuruga)	JQA	Dec-15
	Electromechanical Components Business Division (Tsuyama)	JQA	Dec-15
	Electromechanical Components Business Division (Matsusaka)	JQA	Dec-15
	Electromechanical Components Business Division (Motomiya)	JQA	Dec-1
utomation	Automation Controls Business Division (Tamaki)	JQA	Dec-15
ontrols	Automation Controls Business Division (Tallian)  Automation Controls Business Division (Tsu)	JQA	Dec-18
0111013	Panasonic Industrial Devices Obihiro Co., Ltd. (Obihiro)	JQA	Dec-1
	Panasonic Industrial Devices SUNX Tatsuno Co., Ltd. (Oblinio)	JQA	Dec-18
lectronic		JISHA	
laterials	Electronic Materials Business Division (Yokkaichi)		Jan-13
iateriais	Panasonic Industrial Devices Materials Yokkaichi Co., Ltd. (Yokkaichi)	JISHA	Jan-13
	Electronic Materials Business Division (Koriyama)	JISHA	Aug-14
and a subsequent	Panasonic Industrial Devices Materials Koriyama Co., Ltd. (Koriyama)	JISHA	Aug-14
emiconductor	Semiconductor Business Division (Nagaokakyo)	JQA	Nov-1
	Semiconductor Business Division Hokuriku Factory (Myoko)	JQA	Nov-15
	Semiconductor Business Division Hokuriku Factory (Uozu)	JQA	Nov-1
	Semiconductor Business Division Hokuriku Factory (Tonami)	JQA	Nov-1
	Semiconductor Business Division Okayama Factory (Bizen)	JQA	Nov-1
	Semiconductor Business Division Shirakawa Factory (Shirakawa)	JQA	Nov-15
	Panasonic Semiconductor Discrete Devices Co., Ltd. (Nagaokakyo)	JQA	Nov-1
	Panasonic Semiconductor Discrete Devices Co., Ltd. (Kameoka)	JACO	Sep-18
	Panasonic Semiconductor Discrete Devices Niigata Co., Ltd. (Myoko)	JQA	Nov-1
	Panasonic Device Optical Semiconductor Co., Ltd. (Hioki)	JQA	Mar-15
ptical Disk Drive	Panasonic Precision Devices Co., Ltd. (Nagomi)	LRQA	May-1
attery	AIS (Moriguchi)	JACO	Apr-16
	Energy Device Business Division (Moriguchi)	JACO	Apr-16
	Panasonic Storage Battery Co., Ltd. (Kosai)	JACO	Apr-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Moriguchi)	JACO	Apr-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Taito)	JACO	Mar-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Daito)	JACO	Mar-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Sumoto)	JACO	Mar-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Matsushige)	JACO	Mar-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Matsusriige)	JACO	Apr-16
	SANYO Electric Co., Ltd. Portable Rechargeable Battery Business Group (Kinokawa)	JACO	Apr-16
	SANYO Electric Co., Ltd. Automotive Battery Business Division (Sumoto)	JACO	Mar-16
	SANYO Electric Co., Ltd. Automotive Battery Business Division (Matsushige)	JACO	Mar-16
	SANYO Electric Co., Ltd. Automotive Battery Business Division (Kasai)	JACO	Mar-16
	SANYO Energy Nandan Co.,Ltd. (Minami Awaji)	JACO	Mar-16
	SANYO Energy Higashiura Co.,Ltd. (Awaji)	JACO	Mar-16

#### **Mental Health**

Panasonic established the following consultants to address the topic of preventing or dealing with mental or physical stress among its employees.

#### 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**

Panasonic established the Company Clinic staffed with a full-time industrial physician and nurse personnel to hear concerns about mental and physical health and help people live healthier lives.

#### **Panasonic Group EAP Consultant**

The Company established EAP (Employee Assistance Program) as 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

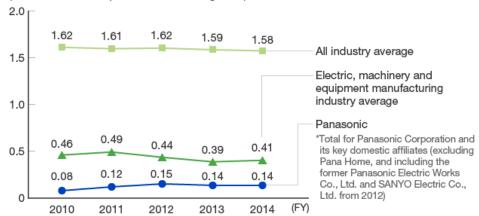
Panasonic believes that, armed with the proper knowledge, HIV/AIDS can be prevented and unnecessary confusion and worry avoided in the work place. Thus, Panasonic has undertaken to educate all its employees about HIV/AIDS as the cornerstone of its initiatives in this area. We are also taking steps to 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, and (4) promoting awareness activities

# **Performance Evaluation and Development**

#### **Number of Work-related Accidents, Time Lost**

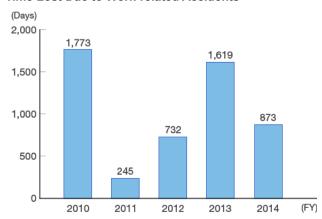
#### **Incident Rate of Work-related Accidents**

(Number of accidents per one million working hours)



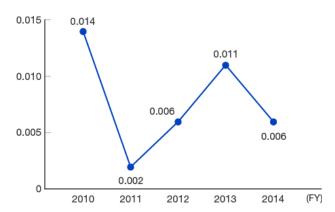
Source: "All industry average" and "Electric, machinery and equipment manufacturing industry average" figures were from the website of the Ministry of Health, Labour and Welfare, Japan.

#### **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

# **Labor Practices: 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 (held in November in fiscal 2013 and 2014), 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 various 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.

The fiscal 2014 survey revealed a major increase in the percentage of positive opinions regarding questions on management and organizational strength in light of the recovery in performance. From the standpoints of customer satisfaction and strong product manufacturing, the survey also revealed that there is a strong awareness of the aggressive actions being taken to build linkage between organizations and solve prevailing issues. Conversely, impacted by last year's sluggish results, the survey showed a drop in satisfaction in such areas as working conditions and motivation as well as viewpoints utilizing diversity.

Based on these results, Panasonic is examining measures at various levels—from reforming systems such as the personnel workplace system to improving workplace environments—in order to motivate all employees and encourage them to carry out their daily duties with an awareness of the issues the Company faces.

#### **Creating an Environment for Global Communications**

Communication is critical to enabling our approx. 270,000 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.

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: Management Approach**

Panasonic aims to build sustainable supply chains with its suppliers based on its standard purchase agreement, which clearly states its principles for respecting human rights, maintaining safe working environments, prohibiting discriminatory behavior, and actions in other areas.

Many companies have concentrated on optimizing their supply chains with suppliers around the world in addition to themselves, in order to stably and rapidly provide products and services to customers with better quality and cost performance.

Against a backdrop of increasing awareness of compliance, human rights, and the environment around the world, in addition to respecting the rights of their own group employees, companies are now expected to responsibly survey the state of labor conditions, compliance with laws and regulations, and environmental measures at their suppliers, and take action if necessary to remedy any shortcomings. A company that continues to conduct business with secondary or even tertiary suppliers discovered to have shortcomings in these areas will be criticized by society, which may impede the company's ability to manufacture products and otherwise conduct business.

Panasonic's Standard Purchase Agreement clearly explains its principles regarding respect for human rights, keeping working environments safe, prohibiting discriminatory behavior, and actions in other areas. Our suppliers, as well as their subcontractors and suppliers, are required to adhere to these principles. Panasonic aims to build a sustainable supply chain with its suppliers by updating and distributing information about the principles it wants its suppliers to observe from a CSR perspective as well.

In order to fulfill its social responsibility in its procurement practices, Panasonic has adopted a basic policy of not using conflict minerals as raw materials, because conflict minerals are a source of funding for organizations that are involved in human rights abuses, environmental destruction, bribery, and other unlawful activities in regions of conflict.

Specifically, 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. In fiscal 2014, Panasonic began investigating its smelters for evidence of conflict minerals in collaboration with the Japan Electronics and Information Technology Industries Association (JEITA).

# **Supply Chain: Policy**

# **Procurement Policy**

Panasonic's procurement policy reflects its basic approach to procurement, as outlined in the ten statements below. Our basic approach views suppliers as essential partners in the creation of value for customers. Based on relationships of mutual trust, we work closely with our suppliers to continuously improve and deepen cooperation.

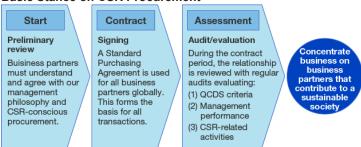
- 1. Working together with Suppliers
- 2. Implementation Information Gathering and Purchasing during the Development Phase
- 3. Ensuring Product Quality and Safety
- 4. Implementation Cost Reduction Programs
- 5. Achieving Optimum Procurement by Shortening Lead-times
- 6. Living in Harmony with the Global 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

#### **Basic Stance on CSR Procurement**

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 in five categories: clean procurement, green procurement, compliance, information security, and human rights, labor and occupational safety.

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.

#### **Basic Stance on CSR Procurement**



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



# For Suppliers

While conducting business activities, Panasonic is expected by society to ensure that corporate social responsibility (CSR) is being followed throughout its supply chain. We therefore 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

# Supply Chain: Responsible Executive and Framework

# **Promoting CSR Procurement**

Each Company and business division incorporates the PDCA cycle to implement CSR procurement activities 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 assigned to procurement operations 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

#### **Green Procurement**

► Environment: Collaboration Across the Supply Chain http://www.panasonic.com/global/corporate/sustainability/eco/supplychain.html

# 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

In consideration of the rights of the employees of its suppliers, Panasonic promotes procurement activities that are of benefit to labor conditions and occupational 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
- ► Supply Chain: Addressing the Issues of Conflict Minerals http://www.panasonic.com/global/corporate/sustainability/supply\_chain/minerals/

#### **Related Links**

▶ Respect for Freedom of Association and Right to Collective Bargaining

http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/#regulation04

► Our Approach to the California Transparency in Supply Chains Act

 $http://www.panasonic.com/global/corporate/sustainability/human\_rights/regulation/\#regulation05$ 

# **Supply Chain: Addressing the Issues of Conflict Minerals**

#### **Basic Stance toward Conflict Minerals**

Panasonic recognizes that for the Democratic Republic of the Congo (DRC) and neighboring nations (hereinafter "covered countries"), the issue of conflict minerals\* 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 covered countries 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 building of a legitimate mineral supply chain in covered countries, including government, corporation, and NPOs. With this understanding, 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 and other projects, 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.

#### **Panasonic's Structure to Address Conflict Minerals**

Panasonic has built a corporate structure that puts the Global Manufacturing Division in charge of Group-wide administration with the director responsible for quality and the environment as the chief executive. Panasonic adopted a four-company structure in April 2013, and designated an officer in charge of conflict mineral investigations and reporting in each company. Under the direction of the officer responsible for conflict mineral investigations and reporting in each company, we have been building systems and conducting surveys in accordance with the particular traits of each business.

#### **Due Diligence**

In addition to communicating our policies to suppliers, we also ask them to make reasonable efforts toward a conflict-free DRC and to procure from Conflict Free Smelter (CFS) to the greatest extent possible.

Since we require the cooperation of all suppliers from smelters to refiners in our conflict mineral surveys, sharing investigative tools and briefing materials is an effective means of reducing the burden placed on suppliers and improving their survey efficiency. For this reason, Panasonic uses a survey tool called the Conflict Mineral Reporting Template (CMRT) that is published by the Conflict Free Sourcing Initiative (CFSI). Moreover, Panasonic participates as an explainer in investigative briefings held by JEITA's Responsible Minerals Trade Working Group. We proactively utilize survey manuals and guidelines commonly used by automakers and the Japan Auto Parts Industries Association.

#### **Status of Surveys**

In the responses we received from suppliers surveyed in fiscal 2014, there were some issues with accuracy at certain suppliers. For instance, we noticed the names of companies that are not smelters mixed in the information we received about smelters. We assume these errors in the conflict mineral survey were due to a variety of factors. For example, errors can be attributed to the fact that many of our suppliers are parts makers that deal with multiple layers of

<sup>\*</sup> Tin, tantalum, tungsten, gold

intermediaries from smelters, that 2013 was the first fiscal year for SEC reporting, and that respondents lacked a proper understanding of the survey.

In the responses from suppliers listing "covered countries as the origin of production," many of the smelters that were identified as a part of the supply chain for parts and materials were CFS-validated smelters, but some suppliers were unable to identify their smelters, making it impossible to determine the origin of the minerals used in production. We continue to help these suppliers as they try to identify their smelters. However, we believe it would be premature to demand that these parts and materials suppliers immediately change their subcontractors. Making such a demand while so few smelters have been validated as CFS would in effect impose a de facto embargo on the covered countries, and impede efforts to responsibly procure minerals from covered countries. At this juncture, Panasonic is involved in industrywide initiatives to get smelters to obtain CFS validated, while encouraging its suppliers to continue to perform due diligence. In the event that minerals have been discovered to support a conflict, Panasonic demands that its supplier change subcontractors and otherwise discontinue their use.

## Participation in Forum for Implementing Due Diligence for Responsible Mineral Procurement

Since 2011, Panasonic has participated in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals in Conflict-Affected and High-Risk Areas project. In November 2013, Panasonic participated in the sixth forum held for the first time in one of the covered countries, the Republic of Rwanda, that was sponsored by International Conference on the Great Lakes Region (ICGLR), OECD, and the United Nations Group of Experts (UNGoE) on the DRC. We came away with a greater understanding of the mines and exchanges that are working toward responsible mineral sourcing in Rwanda, as well as efforts being made to establish a mineral traceability system and efforts to identify mines through analysis of mineral composition and age.

#### **Efforts at Industry Collaboration**

Conflict mineral surveys require the cooperation of suppliers along the entirety of our supply chain. For this reason, Panasonic works as joint chief examiner and joint leader on Japan Electronics and Information Technology Industries Association's (JEITA) Responsible Minerals Trade Working Group in order to help spread the word throughout supply chains via industry collaboration and to help improve survey efficiency.

More specifically, Panasonic held seminars and survey briefings with industry groups inside and outside Japan in order to facilitate the correct way of addressing conflict minerals. Panasonic also participated in the analysis of data about smelters and refiners, as well as the creation of IPC-1755, a data transmission protocol for conflict minerals in the US. Together with Japanese automakers, the Responsible Minerals Trade Working Group inaugurated the Conflict Free Sourcing Working Group in November 2013, thereby promoting dialog with the smelting industry and accelerating efforts to analyze data about smelters and refiners. Panasonic continues to participate in these activities as well.

#### Supporting Initiatives in the Democratic Republic of the Congo and Neighboring Nations

Panasonic performs due diligence along its supply chain as a part of its social responsibility as a downstream company. In order to resolve the issue of conflict minerals, we believe the most important action that can be taken is establishing a framework for responsibly procuring minerals in covered areas.

Based on this belief, we joined the Public-Private Alliance for Responsible Minerals Trade (PPA), a select group of industry, government, and civil society leaders in March 2013.

The PPA is an initiative that provides multifaceted support including assistance in putting in place assurance and traceability mechanisms as well as encourages capability development with respect to conflict-free minerals in the great lakes Region of Central Africa. The PPA also provides a platform for alliance stakeholders to discuss and collaborate on initiatives to achieve sustainable, responsible minerals trade in the region.

By joining the PPA, Panasonic aims to contribute to the healthy economic development of the areas by supporting initiatives for responsible mineral sourcing.

#### Related information

► PPA for Responsible Minerals Trade http://www.resolv.org/site-ppa/

#### **Supporting Sustainable Development in Covered Countries**

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 social problems in African nations. From 2011 to 2013, Panasonic has provided support 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. In 2014, Panasonic provided support to groups including the NPO Reborn Kyoto, which fosters economic independence by providing opportunities for women to receive occupational training in Rwanda.

Through the 100 Thousand Solar Lantern Project, an initiative at Panasonic to deliver 100,000 solar lanterns to regions without electricity by 2018 to commemorate its 100th year of operations, Panasonic donated about 1,500 solar lanterns to hospitals in Uganda, Burundi and other countries through the Japan Red Cross.

## **Local Community: Management Approach**

#### Partnering and collaborating with stakeholders to solve social issues around the world.

There are a wide variety of social issues related to poverty, energy, education, food, medicine and healthcare, primarily in emerging and developing countries. Even in advanced countries some of these issues may exist, as well as the problem of declining birthrates and aging populations. Moreover, environmental issues affect us all on a global scale. Many national governments, local governments, NPOs, NGOs, and international organizations have been working together to solve these social issues. Their efforts can be significantly bolstered with the effective deployment of the business resources held by corporations, such as their employees, technologies, knowledge, expertise, information and financial resources.

With this understanding, Panasonic has positioned its corporate citizenship activities (activities that contribute to society as a corporate citizen) as a social investment, based on the philosophy of education and coexistence, to help solve social issues in two key areas: the environment and energy, and nurturing the next generation.

These initiatives are based on three key strategies of "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."

In addition, Panasonic strives to maximize the outcomes of its corporate citizenship activities by using the PDCA cycle, which is also used for business activities, to make sure that the outcome of its initiatives has had a greater impact (changes and influence in society). It has also incorporated third-party assessment programs for some of its activities.

Panasonic aims to help realize a sustainable society by collaborating and cooperating with stakeholders to solve social issues around the world.

## 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 have set the following global policies for our global corporate citizenship activities. Based on this policy, we aim to enhance the impact of our activities under three key strategies: "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."

Positioning	Social investment should be an integral element in business strategy, and top management must take the lead in making these investments.
Activities	The highest priorities are the next generation and the environment/energy.
	The Head Office will establish global strategies and oversee activities that are carried out across
Vision	several regions.
	Regional companies will spearhead regional strategies and activities.

## Responsible Executive and Framework in the Promotion of Corporate Citizenship Activities

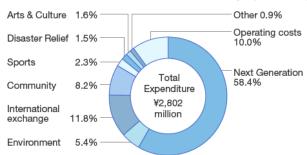
From Japan, Panasonic formulates and conveys global strategies, for which Executive Officer Satoshi Takeyasu bears ultimate responsibility, and directs activities across regions. In six overseas regions - North America; Latin America; Europe and CIS; Southeast Asia and Pacific; India, South Asia, Middle East and Africa; as well as China and Northeast Asia - regional strategies and activities are directed predominantly by a responsible official based in each region.

## **Status of Corporate Citizenship Activities**

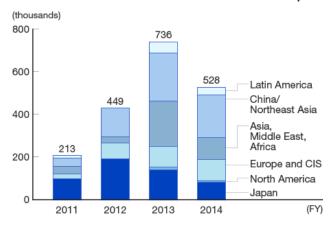
In fiscal 2014, approximately 49 percent of our total social investment was allocated to our overseas corporate citizenship activities.

► For more details of Panasonic's Corporate Citizenship Activities <a href="http://panasonic.net/citizenship/">http://panasonic.net/citizenship/</a>

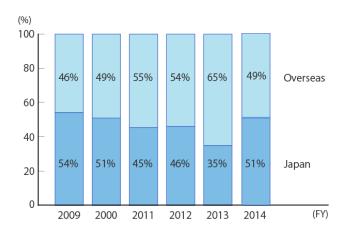
#### **Corporate Citizenship Expenditure Category and Region**



#### **Number of Global Environmental Education Participants**



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



#### Measuring Benefits of Investment in Corporate Citizenship

Panasonic goes to great lengths to gauge the efficacy of its expenditure on corporate citizenship. As an example, we introduce a case study of the Panasonic NPO Support Fund, which helps strengthen the organizational foundations of NPOs and NGOs active in the fields of the environment and in supporting the development of the next generation (see page 197 for details). Panasonic has managed the fund since 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 2014, we provided grants totaling 29.97 million yen to 20 organizations, nine in the environment field and 11 that work with children.

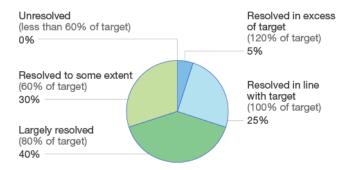
A follow-up survey of grant recipients is conducted one year after a grant-subsidized project has ended. A third party conducts a qualitative and quantitative assessment of the program's efficacy in strengthening organizational foundations.

In fiscal 2014, surveys were conducted at 21 groups that received grants in fiscal 2012 to strengthen their organizational foundations. The results of these surveys are shown below. In response to the question "did the grant solve the biggest issue in organizational management?" 70% of the groups answered that organizational issues had more or less been solved, demonstrating the efficacy of the grants.

Moreover, 90.5% of the grant recipients indicated in at least one of five self-assessment questions that they had worked to improve the impact (changes in and impact on society) of their core operations as a result of strengthening their organizational foundations. The efficacy of the Panasonic NPO Support Fund in strengthening organizational foundations was affirmed by improvement in the outcomes of the major operations of the grant recipients following the strengthening and growth of their organizations.

#### Successfully resolved organizational management problems and strengthened the organizational foundation

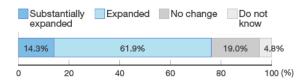
Were you able to resolve the major organizational management problems at the time of grant application by carrying out the grant business?



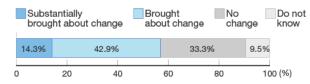
#### Outcomes and impacts improved and enhanced

Were you able to improve an enhance outcomes and impacts of main projects by carrying out measures aimed at strengthening the organizational foundation?

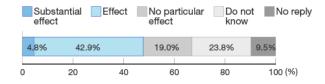
(1) Organizations that expanded the scope of beneficiaries and the number of people: 76.2%



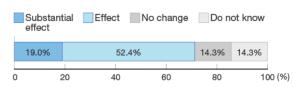
(3) Organizations that brought about change in social consciousness with respect to certain social issues being tackled: 57.2%



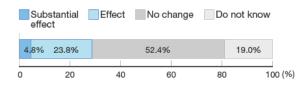
(5) Organizations that had an effect on the actions of other organizations, companies and entities engaged in resolving the same social issues: 47.7%



(2) Organizations that had an effect on resolving certain social issues being tackled: 71.4%



(4) Organizations that had an effect on policies related to the social issues being tackled: 28.6%



# 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 1.26 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 supporting improvement in people's lives, Panasonic leverages its energy technologies while promoting cooperation with NPOs/NGOs and international organizations.

\* Source: "World Energy Outlook 2013" International Energy Agency

#### 100 Thousand Solar Lantern Project

▶ 100 THOUSAND SOLAR LANTERN PROJECT http://panasonic.net/citizenship/lantern/

Solar lanterns are compact lighting equipment 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 CO2 when in use.

Until fiscal 2012, Panasonic ran a pilot project where it donated solar lanterns to people in Tanzania and Cambodia. Based on the experiences gained from these pilot projects, Panasonic conceived the 100 Thousand Solar Lantern Project in fiscal 2013 as a solution to various social problems in regions with poor electricity coverage, such as emerging and developing countries. The aim of the project is to contribute 100,000 solar lights by 2018. In fiscal 2013, the first year of the project, Panasonic gave away a total of 10,000 compact solar lights in Myanmar, India and Kenya.

In fiscal 2014, Panasonic surveyed how a new type of solar lantern (BG-BL03) was being used, and took steps to enhance communications by launching a new project website.

The following is a description of donations made by country.

#### Myanmar (November 2013)

Panasonic donated 2,000 solar lanterns to five NPOs/NGOs active in the field of education, healthcare, and occupational development in Myanmar. The solar lanterns are used for lighting in "temple" schools\* and occupational training centers, as well as for emergency lighting during surgical procedures in hospitals in areas with frequent power outages. They have also been distributed to people in refugee camps in Myanmar, improving the quality of their lives.

\* Temple school: a private school set up in temples and other places for children unable to go to public schools due to economic hardship.



Solar lanterns in use at a temple school

#### Cambodia (December 2013)

Panasonic has donated a total of 2,500 solar lanterns to nine groups, including NPOs/NGOs and international organizations involved in the fields of education, healthcare, and women's independence in Cambodia. The lanterns are being used in various places, such as in reading classrooms for adults in the evening, by midwives during childbirth at night, and in workshops to support the independence of women.



Solar lantern used to aid studying in the evening in a home without electricity

#### India (March 2014)

Panasonic donated 4,000 solar lanterns to six NPOs/NGOs active in the fields of education and healthcare in India. India is a key market for Panasonic, a country with a high population of people living without electricity. India also has complex social problems, such as extreme poverty as well as insufficient education and healthcare. Solar lanterns are being used by these groups to help solve social issues like these.



Solar lantern donation event

#### Indonesia (March 2014)

Panasonic has given 1,000 solar lanterns to one NGO in Indonesia that aims to spread renewable energy sources in regions without electrical service. Of these, 111 solar lanterns came with lampshades from the Cut Out the Darkness Project\* and were distributed to people residing in powerless villages on Sumba Island in eastern Indonesia. The design of the lampshades was chosen from among submissions received from around the world.

- ► Cut Out the Darkness Project http://cotd.panasonic.net/
- \* Cut Out the Darkness Project: A project that invites the public to create design ideas for lampshade cutouts, which are voted for on the project website. The winning design is used to make lampshades that are given away with the solar lanterns. It began in 2014.



A solar lantern is used in a home without electricity

#### Africa (March 2014)

Through the Japanese Red Cross Society, Panasonic has donated 3,337 solar lanterns to three countries in Africa: Kenya, Uganda and Burundi. Plans call for distributing them to clinics in rural areas, where midwives deliver babies in the night with flashlights in their mouths, and to refugee camps. Panasonic also donated 200 solar lanterns to an NGO active in Niger.



Donation event with Japanese Red Cross Society

## **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, when healthy dishes are served at the Company's 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 9.11 million yen to TFT.

## Local Community: Panasonic Kids School for Developing the Next Generation

Panasonic believes developing the next generation is an important activity that should be tackled on a global scale in order to realize a sustainable society. Based on this belief, the Company has actively promoted the Panasonic Kids School, which offers a variety of educational support programs to children around the world. Panasonic leverages its strengths and resources to provide a variety of educational programs around the world to maximize opportunities of children to polish their skills and realize their dreams and future.

In fiscal 2014, the Panasonic Kids School was attended by about 530,000 children in 48 countries. Through programs including Kid Witness News (KWN), offered globally, the Eco Picture Diary Contest, and the Eco Learning Program (ELP), a program developed by Panasonic to teach about the global environment, Panasonic has offered educational opportunities about the environment, tailored to local problems in various countries and regions, while using schools, plants, showrooms and World Heritage sites as its classrooms (please see the next article).

## **World Heritage Eco Learning**

Panasonic and the UNESCO World Heritage Centre announced a strategic partnership agreement in 2011 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.





Cambodia: The Angkor monument

► The World Heritage Special http://panasonic.net/promotion/worldheritage/

#### Cambodia: Angkor monument

A tour of Bayon Temple offered students an opportunity to learn about ancient construction methods and modern restoration methods from experts working to restore the monument.

#### China: Ancient City of Ping Yao (Shanxi Province) / Old Town of Lijiang (Yunnan Province)

Students visited these ancient towns to look at buildings that were constructed 600 to 800 years ago, learning the importance of preserving the heritage of the human race while studying the history of Chinese culture from local guides.



China: The Ancient City of Ping Yao (Shanxi Province)



China: The Old Town of Lijiang (Yunnan Province)

#### Spain: Sagrada Familia

In addition to this World Heritage site, students learned about the global environment from a famous local weatherman, and made a declaration to help preserve the environment.



Spain: Sagrada Familia

## **Eco Picture Diary Contest**

Since fiscal 2009, the Eco Picture Diary Contest has been held as a local activity for children to help save and protect the global environment in their homes and schools. The program gets children involved by having them draw pictures in a special diary, which is then judged in a contest. In fiscal 2014, Panasonic received 300,000 unique picture diaries from children in 47 countries and regions. Winners of the contest were recognized in each country and region.

► Eco Picture Diary Contest http://panasonic.co.jp/ad/pks/global/ecorelay/index.html





Unique picture diaries collected from around the world

## **Kid Witness News (KWN)**

Since 1989, the Kid Witness News program has supported education by inspiring children to make creative news videos. Panasonic initially provided equipment and production know-how to elementary and junior high schools in the U.S. when the program was launched. As of fiscal 2014, the program has spread to more than 10,000 children annually in 23 countries and regions around the world. Through video production activities based on environmental and communication themes, the children become more interested in environmental problems and other social issues. It also promotes creativity, communications skills and teamwork. A global contest has been held once a year since 2008, where the best videos made around the world are presented. The contest also provides an opportunity for the children to interact with each other.

► Kid Witness News (KWN) http://panasonic.net/kwn/



The KWN global awards ceremony



A KWN video meeting



Children participating in the KWN initiative

## **Eco Learning (Environmental Education)**

Panasonic is promoting the Eco Learning Program (ELP) 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.

The Eco Learning Program is offered worldwide in conjunction with Panasonic Kids School and Panasonic ECO RELAY for Sustainable Earth.

- ► Eco Learning Program (ELP) http://panasonic.co.jp/ad/pks/global/ecolearning/index.html
- ► Panasonic ECO RELAY for Sustainable Earth http://panasonic.net/citizenship/environment/

#### Indonesia (March 2014)

Panasonic offered environmental lessons about global warming to students in higher elementary school grades.



Children learning about the Company's environmental technologies and issues relating to the global environment

#### Hawaii, USA (May 2012)

Environmental education was offered to children about creating and storing energy, using the solar panels installed in the area as teaching aids.



A Panasonic employee presents a lecture about energy at an elementary school in Honolulu

#### Japan

In Japan, Panasonic supports educational activities that complement school curriculums under the supervision of the CSR & Citizenship Group and Divisional Companies.

Panasonic developed an innovative program about its environmental initiatives as a company that manufactures LED lighting and batteries. Educational courses about the environment were given to approximately 70,000 students in about 700 schools in fiscal 2014.

#### Eco-Monogatari (Eco story) Program

This educational program about the environment is designed to support the social studies curriculum for school children in the fifth grade, by asking them to think about what can be done to solve environmental problems from the viewpoint of people that support industrial production.

Started in 2008, this program was taught to roughly 25,000 students in 380 schools in fiscal 2014. On a cumulative basis since its beginning, the program has taught more than 100,000 students at 1,650 schools in Japan.



<sup>\*</sup>Japanese only



An employee visiting a school to conduct a lecture based on personal duties and work operations

About 250 Panasonic employees from R&D, production, sales, recycling, and other fields have visited schools to give classes while showcasing their own business expertise.

In fiscal 2014, Panasonic developed with schools an ICT version of this program to more effectively engage students in the classroom by using ICT equipment in Japanese schools, such as electronic blackboards, tablets and wireless video cameras for instructional purposes. Know-how gained through these CSR activities is also being deployed in new







Children enjoying a lesson using devices manufactured by the Company

#### **Become a Professional in Energy Management**

This program educates students about energy and the environment from the viewpoints of professionals in the fields of energy, energy creation, energy storage and energy conservation.

In fiscal 2014, approximately 6,000 children from 100 schools participated in this educational program, which began distributing educational materials in 2010.

\*In 2014, this program won the Consumer Education Printed Materials Award.

▶ Become a Professional in Energy Management http://panasonic.co.jp/citizenship/demae/index.html#cont02 \*Japanese only

Children participating in group work with the theme of "becoming a professional in energy management

#### **Eco Lighting Classrooms**

This environmental education program uses hands-on experiments to learn about the unique qualities and differences between incandescent, fluorescent and LED light bulbs, to promote energy conservation at home.

In fiscal 2014, around 13,000 students in 200 schools took the course.

- ► Eco Lighting Classrooms http://panasonic.co.jp/es/company/education/teaching/index.html
- \*Japanese only



Experiments using a hand-cranked power generator.

#### **At-School Battery Classrooms**

This educational program teaches children about the batteries they use every day, their impact on the environment and how to recycle them.

In fiscal 2014, around 9,000 children participated in the classroom, which was offered about 140 times.

- ► At-School Battery Classrooms http://panasonic.co.jp/ec/study/
- \*Japanese only



Children participating in a class for making dry cell batteries by hand

The curriculum has programs for learning about batteries and making dry cell batteries by hand. Panasonic prepares a special dry battery fabrication kit for the students, who assemble their own manganese batteries while deepening their understanding of the environment.

#### **Career Education**

Panasonic helps children who are responsible for the next generation and the future learn about careers and the mindset necessary for these careers by discussing its role in society and the various roles of people at a manufacturing company.

- ► My Future Discovery Program http://panasonic.co.jp/citizenship/demae/index.html#cont04
- \*Japanese only

#### **My Future Discovery Program**

In fiscal 2014, Panasonic provided educational materials and dispatched employees to teach the program to about 12,000 students in 120 schools.



A group learning session that uses cards to explain work roles

#### RiSuPia Hands-On Museum, Tokyo / Vietnam

Panasonic operates the RiSuPia museum facility in Tokyo and Vietnam that allows visitors to participate in hands-on activities based on the themes of science and mathematics. Hands-on exhibits at the museum, which appeal to all the five senses of children, aim to stimulate interest and curiosity while conveying 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.

► RiSuPia http://risupia.panasonic.co.jp/en/index.html

#### **Number of Visitors**

	FY 2014	Cumulative Total
Panasonic Center Tokyo RiSuPia	405,000	2,320,000
Panasonic RiSuPia Vietnam	40,000	150,000

#### 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 living in evacuation after the Great East Japan Earthquake. Since its launch in September 2011 through fiscal 2014, an aggregate total of around 5,400 students from 18 elementary and junior high schools in lwate, Miyagi, and Fukushima prefectures, have participated in the program, which includes members from a local community group and participants in regional screening events. "Smiling for Sure 2021" was created using the know-how gained through the "Kid Witness News\*" program, a video-making assistance program that Panasonic has promoted over many years. The program was launched with the aim of bringing back a smile to the faces of disaster-stricken children.

Under the program, children make two videos with the titles "What I Want to Say" and "Message for Us in 2021." A screening of the "What I Want to Say" videos made by the children is held at schools, attended by the students, teachers, their parents and members of the local community. The "Messages for Us in 2021" videos are saved onto an SD memory card and placed in a time capsule, which was then presented to each participating school. The idea was generated in the hope that the children would come back to the school for a reunion 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.
- ► Kid Witness News (KWN) http://panasonic.net/kwn/



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 as a global citizen, Panasonic is not only promoting its corporate activities as an enterprise but is also supporting the volunteer activities carried out by its employees, and their families, on a global scale.

## **Emerging Country NGO Pro Bono Program:**

### Panasonic Innovation Volunteer Team (PIVoT)

For employees applying their business skills to volunteer activities, Panasonic has operated the Panasonic NPO Support Pro Bono Program since April 2011 in Japan and the Panasonic Innovation Volunteer Team (PIVoT) program for emerging countries since 2012, where employees work together with NGOs to solve various issues faced by emerging countries.

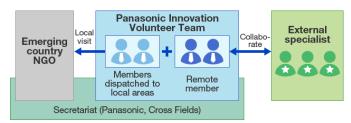
Specifically, teams are made up of four to five Panasonic employees of varying experiences and expertise. One or two members from each team visit an NGO in an emerging country and stay for a month beforehand as dispatched members to local areas and, while liaising with remote team members in Japan and specialists from within and outside the company, work to solve local problems. Working at NPOs/NGOs 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 expertise at Panasonic. Most of the employees residing abroad take advantage of additional paid leave for volunteer work or other purposes which employees are awarded in return for 10, 20 or 30 years' service.

These volunteer opportunities under PIVoT not only provide the local NPO/NGO partner(s) with much-needed human resources, 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 and knowledge about needs and local sustainability issues that could inform our own product and service development efforts in emerging regions that are key to our future growth. Since beginning in February 2012, seven employees have volunteered to help locally and 16 employees have provided support remotely.

In fiscal 2014, four employees volunteered to help locally on a total of three occasions in Indonesia and India, with support provided by nine remote employee volunteers.

\* Pro bono refers to the provision of work-related expertise, skills, and time for the benefit of society as a whole

#### **PIVoT Structure**



- ${\color{red} \blacktriangleright} \ \ Panasonic\ Innovation\ Volunteer\ Team\ (PIVoT)\ http://panasonic.co.jp/citizenship/pivot/index.html$
- \* Japanese only

#### PIVoT Activities in Fiscal 2014

#### Indonesia: Third round of volunteers (October 2013)

Two employees dispatched to the country, three employees provided support remotely

We supported the efforts of NGOs to solve problems in areas without electricity by installing small-scale hydroelectric generators with the involvement of local residents. Panasonic employees were responsible for creating plans to effectively utilize surplus electricity from the installed hydroelectric power facilities.

#### India: Fourth round of volunteers (December 2013)

One employee dispatched to the country, three employees provided support remotely

Our employee volunteers worked with NGO groups that support traditional Indian artists and artisans. We helped them develop marketing and sales channels for selling their art overseas.



One employee dispatched to the country, three employees provided support remotely

We offered support in formulating plans with local NGOs working to spread toilets in poverty-stricken areas of India, in order to improve sanitary conditions.



Panasonic employees explain the system in a workshop.



A Panasonic employee conducting a field survey.



A Panasonic employee explaining planning to NGO people

#### Panasonic Innovation Workshop (formerly 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 a majority of the population.

At the Panasonic Innovation Workshop, targeted at employees who thought they would like to contribute to finding a solution, participants have the opportunity to gain 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 two workshops held in fiscal 2014 were attended by 26 employees from a wide range of work backgrounds within Panasonic as a whole, including engineering, development, intellectual property, and legal. They worked together to create business ideas for solving social problems in India and Indonesia.





Dialog with NPO staff in Indonesia (third round) Participants in a workshop (fourth round)

## 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 of March 2014, 94 employees have registered as volunteers. These employees get involved locally to find solutions for social issues, with the aim of improving our capabilities as a global citizen to take action on finding solutions to global problems. For details about these activities, please refer to Strengthening the Organizational Foundations of NPOs.

► Pro Bono Program http://panasonic.net/citizenship/environment/

#### 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 for its environmental activities, the Company has promoted efforts since fiscal 2008 that bring together people, communities and activities on a global scale.

In fiscal 2014, approximately 120,000 trees were planted on a global basis. This brings the aggregate total to around 3,150,000 trees since 2007. Looking ahead, ongoing efforts will be made to protect the natural environment in partnership with local communities, such as by planting trees.

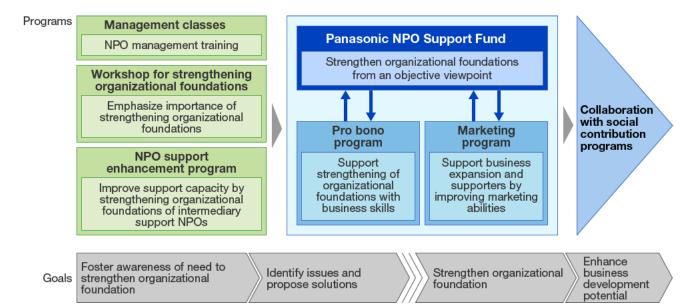
For details of specific activities, please refer to "Environment: Contribution to Local Communities and Education for the Next Generation."

## Local Community: Strengthening the Organizational Foundations of NPOs

To realize a sustainable society, the organizational foundations of NPOs/NGOs need to be strengthened in order to sustainably continue their activities as citizens trying to solve social issues. In 2001, Panasonic launched a support program for strengthening the organizational foundations of NPOs/NGOs as a central activity of its social contributions. We have continued to offer support in this regard since then.

The Panasonic NPO Support Fund is one of six programs that the Company organically operates toward achieving this objective. In order to ensure these programs are beneficial to local NPOs, we have programs that collaborate with NPO intermediary support organizations. Panasonic holds forums for strengthening the organizational foundation, pro bono forums, and marketing forums to disseminate information throughout society about these initiatives to strengthen organizational foundations and their benefits. Through independent efforts such as these, Panasonic aims to contribute to social change for the better through sustainable citizen activities and by finding solutions to social problems.

#### Panasonic's Support Program to Strengthen the Organizational Foundations of NPOs and NGOs



## Panasonic NPO Support Fund

There are a fair number of NPOs, which pioneer efforts in country, and NGOs, which work in emerging and developing countries, that aim to solve social issues. The Panasonic NPO Support Fund is a program that supports the strengthening of the organizational foundations of these NPOs/NGOs by incorporating the opinions of a diverse array of objective third parties. We also offer assistance in the form of an organization health checkup that looks for problems in the overall organization and proposes solutions to them.

In 2013, a total of ¥29,970,000 was handed out in the form of grants to 20 organizations, including nine groups active in the environmental field and 11 groups involved in helping children. The forum to strengthen organizational foundations and the grants award ceremony held in January 2014 was attended by 120 people. Since the program was established in 2001, a total of ¥290 million has been given away in 239 grants. (Program collaborators: Eco Future Fund and Civil Society Initiative Fund)

► Panasonic NPO Support Fund http://panasonic.co.jp/citizenship/pnsf/npo\_summary.html



Members from recipient organizations at the 2013 presentation ceremony

<sup>\*</sup>Japanese only

#### Panasonic NPO Support Pro Bono Program

This program is a social contribution initiative where employees use their work skills and experiences to offer support to NPOs for the benefit of society as a whole. The aim of the program is to enhance the business development capabilities of NPOs working to solve social issues and magnify the outcomes of their activities. In fiscal 2014, 38 employees offered their services on a pro bono basis to four NPOs, helping create business plans and conducting basic marketing surveys. The Panasonic Pro Bono Team was formed exclusively for the employees that helped these four groups, which included an NPO active in areas hit by the Great East Japan Earthquake. In October 2013, Panasonic held the Pro Bono Forum Tokyo 2013 as an event to explain the potential and attractiveness of pro bono work. This event was planned to coincide with the International Pro Bono Week 2013, which was held for the first time in Japan. Approximately 160 people interested in pro bono work attended, including adults, students and NPO staff.



Supporting the efforts of the NPO Family House to build ideal housing

Since it was established in 2011, 81 employees have offered to work on a pro bono basis for 13 groups. (Program collaborator: Service Grant)

- ▶ Panasonic NPO Support Pro Bono Program http://panasonic.co.jp/citizenship/pnsf/probono/index.html
- \*Japanese only

## **Panasonic NPO Support Marketing Program**

Marketing is an important activity for an NPO, and an instrument for achieving its mission, for acquiring donations, supporters and volunteers, as well as producing value for the services provided.

This program provides individual support and training in marketing to NPOs with the aim of enhancing their marketing abilities, sharing this know-how across their entire organization instead of having it center on a few individuals, and solving their own organizational issues. In November 2013, Panasonic held a marketing forum as an event for participating groups to present their outcomes. 135 people participated in the event. Since it was launched in 2008, the program has helped 51 NPOs brush up their marketing skills. (Program collaborator: NPO Support Center)



Participants in the inaugural orientation and basic training session

- ${\color{red} \blacktriangleright} \ \ Panasonic\ NPO\ Support\ Marketing\ Program\ http://panasonic.co.jp/citizenship/pnsf/problem/index.html$
- \*Japanese only

## **Workshop to Strengthen Organizational Foundations**

This workshop is held annually to coincide with the application period for the Panasonic NPO Support Fund, with the objective of increasing understanding of the importance of strengthening organizational foundations. Participants take lessons about strengthening organizational foundations, using case examples of groups that have had their organizational foundations strengthened through the Panasonic NPO Support Fund, and participate in workgroups to think more carefully about the organizational issues of their own groups. In fiscal 2014, 147 representatives from 113 groups participated in workshops held in five locations around Japan. (Program collaborator: Japan NPO Center)



A workshop held in Tokyo

- ► Workshop to Strengthen Organizational Foundations http://panasonic.co.jp/citizenship/pnsf/npo\_koubo\_2014.html
- \*Japanese only

## **NPO Support Enhancement Program**

In order effectively strengthen the organizational foundations of NPOs/NGOs, we believe it is necessary to encourage the strengthening of organizational foundations by having national NPO intermediary support organizations offer closer support to each local NPO. For this reason, we launched in January 2014 the NPO Support Enhancement Program, and provided training to staff at NPO intermediary support organizations. (Program collaborator: Japan NPO Center)



The inaugural training session

## **Management Classes**

Panasonic offers e-learning courses about the basics of management for NPOs and social enterprises with the aim of providing education to NPO staff and personnel that support NPOs as the main part of its efforts to strengthen organizational foundations. In fiscal 2014, management classes were held twice and taken by a total of 119 people. A total of 538 people have taken the course since it was started in 2008. (Program collaborator: Public Resources Foundation)

- ► Management Classes http://panasonic.co.jp/citizenship/pnsf/management/index.html
- \*Japanese only

## **Panasonic NPO Support Fund for Africa**

The Panasonic NPO Support Fund for Africa is a part of our efforts to attain the United Nations Millennium Development Goals (MDGs), a commitment on the part of the international community. The program supports the strengthening of the public relations efforts of NPOs/NGOs active in Africa.

Countries in Africa face many social problems waiting for a solution in the fields of education and healthcare, as well as the problems of poverty and starvation. The Panasonic NPO Support Fund for Africa supports activities designed to spread a deeper understanding of the social issues in Africa and build awareness of NPOs/NGOs working to solve these problems. By describing the activities of each organization and spreading the word about conditions in African countries, the program aims to increase understanding among people, increase volunteers and supporters for the organizations, and strengthen their management foundations.

In fiscal 2014,  $\pm 3,020,000$  in aid was given to four groups. Since the program began, a total of  $\pm 9,590,000$  in aid has been donated to 12 organizations.



Road improvement work conducted by the NPO CORE (Community Road Empowerment)

- Panasonic NPO Support Fund for Africa http://panasonic.co.jp/citizenship/pnsf/africa/npo\_mina.html
- \*Japanese only

## **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:

#### • January 2014: Labor and management provided assistance to the Philippines for typhoon #30

[Donation] ¥17,266,000 was donated by labor and management in Japan

[Recipients] Japan Asian Association and Asian Friendship Society (JAFS), Save the Children Japan (SCJ), Association for Aid and Relief, Japan (AAR Japan), Japanese Organization for International Cooperation in Family Planning (JOICFP), and Japan Platform (JPF)

[Material assistance] 300 Panasonic solar lanterns were donated to regions with insufficient electricity supply, using part of the donations collected.

#### November 2013 – January 2014: Additional support for victims of typhoon #30 in the Philippines

[Donation] ¥5.4 million from overseas business sites (employee donations and matching donations by their companies) [Material assistance] 96,720 dry batteries, 336 flashlights, 1,000 Panasonic solar lanterns

#### • November 2013: Aid for victims of typhoon #30 in the Philippines

[Donation] ¥5 million from the Panasonic Group

Recipient: Japan Platform

#### • April 2013: Support for Earthquake Victims in Ya'an City in Sichuan Province, China

[Donation] 1 million yuan (approximately 16 million yen) from the Panasonic Group

Recipient: Red Cross Society of China

#### • December 2011: Support for Earthquake Victims in Turkey

[Donation] 10 million yen from the Panasonic Group

Recipient: Turkish Red Crescent

#### • November 2011: Support for Flood Victims in Thailand

[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

#### • March 2011: Support for the Victims of the Great East Japan Earthquake

[Donation] ¥300 million from the Panasonic Group

Recipient: Central Community Chest of Japan

The Panasonic Group made monetary donations of some 0.4 billion 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 0.1 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)

Employee volunteers participated through KEIDANREN (Japan Business Federation)'s One-Percent Club's Corporate Volunteer Program, RENGO (Japanese Trade Union Confederation)'s Relief Volunteer Program, and School Aid Japan's Save Rikuzentakata Volunteer Program.

Other activities to support the next generation included assistance for the following programs: the School Smile Support Project, Disney Blu-ray Movie Screening, Panasonic Kids School Rope Jump, and Smile for Sure 2021 Production Committee. ¥40 million in entrance fees for the 2011 Panasonic Open were also donated.

<sup>►</sup> Related blog http://panasonic.co.jp/citizenship/blog/cat1509/

<sup>\*</sup> Japanese only

#### • February 2011: Support for Earthquake Victims in New Zealand

[Donation] 5 million yen from the Panasonic Group

Donated to: International Appeal Fund

#### • August 2010: Support for Landslide Victims in Gansu Province, China

[Donation] RMB one million (approximately 13 million yen)

Donated to: Red Cross Society of China

#### • August 2010: Support for Flood Victims in Northwestern Pakistan

[Donation] 13 million yen from the Panasonic Group

Donated to: Japan Platform

#### • April 2010: Support for Victims of Qinghai Earthquake in China

[Donation] 14 million from the Panasonic Group

Donated to: Red Cross Society of China

#### • March 2010: Support for Victims of Major Earthquake in Chile

[Donation] 29 million pesos from the Panasonic Group (about ¥5 million)

Recipient: Local TV station's emergency telethon special

Employee donations: ¥7.06 million

Material assistance: 68,544 dry batteries, 14,790 flashlights, 42 million pesos (about ¥7 million)

Recipient: Local TV station's emergency telethon special

#### • January 2010: Support for Victims of Haiti Earthquake

[Donation] ¥10 million from Panasonic Corporate;

Recipient: Japanese Red Cross (¥5 million), Japan Platform (¥5 million)

Worldwide employee donations: ¥9.72 million

Recipient: UNICEF, Red Cross, etc.

Material assistance: 80,000 dry batteries, 20,000 flashlights (about ¥3 million) were donated to Red Cross from Panasonic

Group companies in Latin America.

#### • September 2009: Support for Victims of Earthquake in Sumatra, Indonesia

¥10 million in total donations (including in-kind donations) from the Panasonic Group

[Donation] ¥7.3 million

Recipient: Government in West Sumatra

Material assistance: 10,000 dry batteries, 1,000 radios, blankets, etc. (about ¥2.7 million)

#### • September 2009: Support for Victims of Typhoon #16 in the Philippines

¥5 million in total donations (including in-kind donations) from the Panasonic Group

[Donation] ¥2.5 million

Recipient: Philippine Red Cross

Material assistance: 157,188 dry batteries, 892 flashlights (about ¥2.5 million)

#### • September 2009: Support for Victims of Samoa Earthquake

¥2 million in total donations (including in-kind donations) from the Panasonic Group

[Donation] ¥1 million

Recipient: New Zealand Red Cross

Material assistance: Dry batteries, flashlights, etc. (about ¥1 million)

#### • June 2008: Support for Victims of Inland Earthquake in Miyagi, Iwate

[Donation] ¥5 million as Matsushita Electric Industrial

Recipients: Japanese Red Cross, Iwate Prefecture Branch (¥2.5 million), Japanese Red Cross Miyagi Prefecture Branch (¥2.5 million)

#### • May 2008: Support for Victims of Major Earthquake in Sichuan, China

[Donation] ¥190 million in total donations (including employee donations worldwide and in-kind donations) from the Matsushita Electric Industrial Group

Recipient: China Red Cross

#### • May 2008: Support for Victims of Cyclone Damage in Myanmar

[Donation] ¥10 million as Matsushita Electric Industrial

Recipient: Japan Platform

#### • December 2007: Support for Victims of Cyclone Damage in Bangladesh

[Donation] ¥5 million as Matsushita Electric Industrial

Recipient: Japan Platform (¥3 million), Shapla Neer (¥2 million)

#### • September 2007: Support for Victims of Earthquake in Peru

[Donation] ¥5 million as Matsushita Electric Industrial

Recipient: Peru Embassy

Material assistance: 30,000 dry batteries (about \$3,800)

Recipient: Peru government

#### July 2007: Support for Victims of Chuetsu Offshore Earthquake in Niigata Prefecture

[Donation] ¥30 million for condolence gift as Matsushita Electric Industrial Group

Recipient: Niigata Prefecture's Disaster Response Headquarters

Material assistance: 20 42-inch plasma TVs, 100 electric fans, 200 extension cords (about ¥10 million) for evacuation

centers

Recipient: Niigata Prefecture's Disaster Response Headquarters

#### • April 2007: Support for Victims of Noto Peninsula Earthquake

[Donation] ¥3 million as Matsushita Electric Industrial

Recipients: Ishikawa Prefecture Community Chest (¥1.5 million as a condolence gift), Central Community Chest of Japan (¥1.5 million as funding for disaster volunteer activities)

#### June 2006: Support for Victims of Java Earthquake in Indonesia

[Donation] Total of ¥45.95 million from Matsushita Electric Industrial and Panasonic Asia Pacific.

Recipients: Japan Platform (¥10 million), Japan Committee for Unicef (¥10 million), Japanese Red Cross (¥6.73 million), Red Cross in other countries (¥19.22 million)

Material assistance: 20,000 dry batteries, 500 flashlights, 2,000 radios, 50 TVs from Matsushita Electric Industrial Group companies in Indonesia

#### • March 2006: Support for Victims of Landslide on Leyte Island, Philippines

[Donation] ¥5 million (2.155 million pesos) as Matsushita Electric Industrial

Recipient: Maasin Church, Leyte Island

[Donation] ¥1.1 million (0.5 million pesos) as Matsushita Electric Industrial Group companies in the Philippines

Recipient: Philippines Department of Social Welfare and Development

#### • October 2005: Support for Victims of Earthquake in Pakistan

[Donation] ¥48.55 million in total donations from worldwide employees of Matsushita Electric Industrial Group and corporate matching donations

Recipients: Japanese Red Cross. Also gave related donations via KEIDANREN (Japan Business Federation) (¥3 million), Kansai Economic Federation (¥300,000)

#### • August 2005: Support for Victims of Hurricane Katrina in the US

[Donation] \$1 million (¥114 million) in total donations from worldwide employees of Matsushita Electric Industrial Group and corporate matching donations

Recipients: Bush-Clinton Fund (50%), US Red Cross (50%). Also gave related donations via KEIDANREN (Japan Business Federation) (¥2 million), Kansai Economic Federation (¥300,000)

#### • March 2005: Support for Victims of Fukuoka Western Offshore Earthquake

[Donation] ¥2 million as Matsushita Electric Industrial

Recipient: Fukuoka City Disaster Response Headquarters

#### • December 2004: Support for Victims of Indian Ocean Earthquake and Tsunami on Sumatra Island

[Donation and material assistance] ¥169.38 million in total donations as Matsushita Electric Industrial Group. ¥112.08 million in donations from worldwide employees and corporate matching donations.

Recipient: Thailand Unicef. Also gave related donations via KEIDANREN (Japan Business Federation) (¥20 million), Kansai Economic Federation (¥1 million)

Material assistance: 200,000 dry batteries, 20,000 flashlights and other emergency food assistance from group companies in Asia (about ¥36.3 million)

#### • November 2004: Support for Victims of Niigata Prefecture Chuetsu Earthquake

[Donation] ¥33 million as Matsushita Electric Industrial Group

Recipients: Niigata Prefecture Disaster Response Headquarters (¥30 million), Ojiya City (¥3 million)

#### • October 2004: Support for Victims of Typhoon #23 in Hyogo Prefecture

Material assistance, etc.: 600 blankets, 2,000 batteries, 150 shovels, 150 pairs of boots, 90 wheelbarrows, 50 hoses. 50 weekend volunteers helped with repairs for flooding damage.

#### • July 2004: Support for Victims of Torrential Rain Damage in Niigata Prefecture

[Donation] ¥3 million as Matsushita Electric Industrial

Recipient: Niigata Prefecture Disaster Response Headquarters

#### • July 2004: Support for Victims of Torrential Rain Damage in Fukui Prefecture

[Donation] ¥3 million as Matsushita Electric Industrial

Recipient: Fukui Prefecture Disaster Response Headquarters

#### • December 2003: Support for Victims of Iran Earthquake

Material assistance: 9,000 flashlights, 120,000 dry batteries (about \$47,000 or ¥5.6 million)

#### May 2003: Support for SARS Countermeasures

[Donation] ¥1 million

Recipient: Chinese Embassy (¥500,000), Chinese Consulate (¥500,000)

Material assistance: 580 fax machines, 20 electronic blackboards, etc. (about ¥68.4 million)

#### • September 2001: Support for Victims of Simultaneous Terrorist Attacks in the US

[Donation] \$2.1 million (¥252 million) as Matsushita Electric Industrial Group. Also gave related donations via KEIDANREN (Japan Business Federation) (¥3 million), Kansai Economic Federation (¥150,000) Material assistance: 1,000 headlamps, 1,000 flashlights, 5,000 dry batteries, 15 PCs, 300 vacuum cleaners (about \$100,000). Employees also donated t-shirts, towels, toothbrushes and soap

#### • January 2001: Support for Victims of Major Earthquake in Western India

[Donation] ¥14.82 million from employees. Also gave related donations via KEIDANREN (Japan Business Federation) (¥300,000), Kansai Economic Federation (¥100,000)

#### • September 2000: Support for Victims of Volcanic Eruption on Miyake Island

Material assistance: 1,500 light fixtures (¥4.66 million). Also donated 20 fax machines.

#### • March 2000: Support for Victims of Eruption of Mt. Usu in Hokkaido

Material assistance: Emergency radios (about ¥37.14 million), 180 powerful lights and one washing machine

#### • December 1999: Support for Victims of Torrential Rain Damage in Venezuela

[Donation] ¥6 million as relief donation

Material assistance: 9,000 powerful lights, 18,000 dry batteries (about \$10,000)

#### • September 1999: Support for Victims of Major Earthquake in Taiwan

[Donation] ¥39.34 million in employee donations

Material assistance: 300,000 dry batteries, 10,000 flashlights, 1,500 electric pots, 3,300 sound recorders (about ¥30.03 million)

#### • August 1999: Support for Victims of Major Earthquake in Turkey

[Donation] ¥2.11 million via KEIDANREN (Japan Business Federation)

#### • August 1998: Support for Victims of Torrential Rain Damage in Tohoku

Material assistance: Fax machine, photocopier, 4,500 pages of fax paper

#### • August 1998: Support for Victims of Major Flooding in China

[Donation] 350,000 yuan (about ¥6.3 million)

#### • January 1997: Support for Russian-Flagged Nakhodka Oil Tanker Spill

[Donation] ¥1.2 million

Recipients: Fukui Prefecture, Ishikawa Prefecture

Material assistance: 150 buckets, 270 drum canisters, 30 sets of hot cushions, 3,150 towels, masks, etc. 285 volunteers.

#### • January 1995: Support for Victims of Great Hanshin Earthquake

[Donation] ¥300 million as Matsushita Electric Industrial

Recipient: Disaster Response Headquarters

Material assistance: 230,000 dry batteries, 50,000 flashlights, 10,000 radios, 2,000 portable heaters, 200 walkie-talkies,

200 washing machines. 3,000 volunteers

#### • June 1994: Support for Victims of Storm Damage in Southern China

[Donation] ¥10 million

Recipient: Chinese Embassy in Japan

#### January 1994: Monetary Support and Relief Supplies for Victims of Los Angeles Earthquake

[Donation] \$250,000 (about ¥30 million)

#### July 1993: Support for Victims of Offshore Earthquake in Southwestern Hokkaido

Material assistance: Flashlights, dry batteries, 10 TVs, etc. (about ¥1 million)

#### July 1991: Support for Victims of Mt. Pinatubo Eruption in the Philippines

[Donation] 2 million pesos (about ¥10 million)

Recipient: Philippine government

#### • June 1991: Support for Victims of Mt. Unzen Eruption

Material assistance: Telephones, vacuum cleaners, washing machines, dryers, refrigerators, rice cookers, air conditioners, dry batteries, flashlights, etc. (about ¥36.37 million)

#### • October 1989: Support for Victims of San Francisco Earthquake

[Donation] \$1 million (about ¥140 million)

Recipient: Local disaster response headquarters

Material assistance: Flashlights, dry batteries (\$35,000, or about ¥4.9 million)

## **Local Community: Foundations**

In its aim to develop the next generation, Panasonic has established many foundations, scholarship programs and academic achievement awards to promote the development of a broad range of human resources.

#### THE JAPAN PRIZE FOUNDATION

Inaugurated in 1983, the Foundation aims to promote the development and dissemination of science and technology by awarding the prestigious Japan 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. A cumulative total of 83 individuals had received the award worldwide by 2014.



#### **Panasonic Education Foundation**

Originally established in 1973 as the Matsushita Audiovisual Education Research Foundation, the Panasonic Education Foundation aims to promote the utilization of audiovisual and information technologies to enhance education. It provides grants and training for elementary and secondary education taught at academic institutions in support of finding solutions to local problems. Through these activities, the Foundation's philosophy is to nurture creativity and humanity for creating the future in children that will become the next generation. As of May 2014, the Foundation has provided assistance 22,731 times, mainly for elementary and secondary education.



#### The Konosuke Matsushita Memorial Foundation

The Matsushita International Foundation (established in January 1988) and the K. Matsushita Foundation of EXPO '90 (established in December 1988) were merged together to become the Konosuke Matsushita Memorial Foundation in August 2010 (registered as a Public Interest Incorporated Foundation in April 2012). The Foundation strives to contribute to advances in world culture and the peace and prosperity of the world by aiming to promote mutual understanding internationally and to create a society based on the concept of coexistence between nature and mankind. With these objectives, the Foundation provides assistance to young Japanese researchers studying abroad, provides research grants, invites international students to study in Japan, promotes international exchange, and recognizes initiatives to encourage coexistence between nature and mankind. As of March 2014, the Foundation has provided grants to a total of 174 foreign students to study in Japan, and a total of 185 Japanese students to study in foreign countries.



#### Ryozen Institution (Japan)

In October 1968, on the centennial anniversary of the Meiji Restoration, Panasonic founder Konosuke Matsushita called on the finance sector to participate in a fund with the contribution collected used to preserve and maintain historical monuments and sites located in the Ryozen hill of graves, where participants in the Meiji Restoration movement are enshrined. Konosuke Matsushita established the Ryozen Institute on this opportunity, which was later registered as a Public Interest Incorporated Foundation in June 2012. This Institute seeks to preserve the cultural spirit of Ryozen and honor the spirit and great undertakings of the pioneers that laid the foundations of modern Japan. By doing so, it aims to pass on this spirit to the young generation that will be the next leaders of Japan. In 1970, the Ryozen Museum of History was opened, and many visitors have come to learn about the Meiji Restoration and the end of the Tokugawa shogunate.



#### **Panasonic Scholarship**

The Panasonic Scholarship Program was established in 1998 in commemoration of the company's 80th anniversary as a way for the company to express its appreciation to society. Its aim is to provide scholarship opportunities to privately financed students from Asian countries who wish to pursue a master's course in science and technology in Japan, to offer financial assistance to foster highly educated experts who can contribute to the development of their countries in the 21st century, and to promote mutual friendship between their home countries and Japan. As of March 2014, the program has helped 320 foreign students.



## **Local Community: Other Initiatives for Coexistence with Society**

Panasonic strives to create a society that respects diversity by cooperating with NPOs/NGOs and supporting the arts and cultural activities, for a civil society in which people can coexist with ease.

## **Support for the Arts and Culture**

The arts and culture are a representation of the human race, its spirit, history and countries. The arts are an important aspect of an open-minded society where people are able to live with joy and fresh vitality. Fostering young artists and passing on tradition, we sponsor events that recognize outstanding artistic achievements. From the perspectives of developing the next generation, education and global vision, we contribute to local communities through the arts and cultural activities, as well as employee involvement, while supporting and collaborating with NPOs.

#### **Panasonic Shiodome Museum**

This museum was opened in April 2003 on the fourth floor of the Tokyo head office building of the former Panasonic Electric Works Co., Ltd. [PEW] (currently the Panasonic Tokyo Shiodome Building) to offer as many people as possible opportunities to view oil paintings and prints by the famous artist Georges Rouault (1871-1958) that represents 20th century France. These works of arts have been collected and preserved since the 1990s as a part of PEW's contribution to society. The collection of about 230 works represents the full spectrum of Rouault's accomplishments from his early years to his final years, in oil paintings and traditional prints. These works of art are always on display in the Rouault Gallery in the museum. Other exhibitions related to Rouault are also periodically put on display.

Exhibitions are held based on themes that are strongly related to Panasonic's operations, such as construction, homes, the arts and design, exploring new avenues and offering ideas about the relationship between people and space, as well as people and goods that make our lives plentiful.

As an urban oasis that inspires visitors while providing them with a respite with various cultural activities, the Panasonic Shiodome Museum creates a cultural atmosphere well suited to its location in Shiodome, a modern urban environment for the 21st century.

#### **Activities**

- Preservation, research and public viewings of art by Georges Rouault
- · Rotating exhibitions based on themes of beauty by Rouault, construction, homes, and lifestyle culture
- Holding of cultural events based on themes of exhibitions
- ► Panasonic Shiodome Museum http://panasonic.co.jp/es/museum/en/schedule/

#### **Panasonic Community Concerts**

The New York Symphonic Ensemble and Panasonic's business sites in Fukuoka and Shiga have formed a tie-up to present a series of classical performances called the Panasonic Community Concerts. In Fukuoka, performances were held in conjunction with the Asia Pacific Children's Convention in Fukuoka, and the UN-Habitat Regional Office in Fukuoka. In Shiga, a performance was held with the local wind instrument orchestra. The New York Symphonic Ensemble is composed of first-rate musicians mainly from New York, and focuses on the development of young musicians. In 2013, the New York Symphonic Ensemble performed at the Fukuoka Symphony Hall on July 10 and at the Lake Biwa Hall in Shiga on July 20.



#### **Promoting Traditional Japanese Art and Crafts**

Founder Konosuke Matsushita had an intense interest in traditional Japanese arts and crafts, as a form of the basic art of manufacturing. To pass this interest along and develop it further, Panasonic has supported the activities of the Japan Kogei Association, which since 1960, has been composed primarily of traditional artists and artisans, the so-called living national treasures of Japan. Passing along the will of our founder, we have offered the Panasonic Award since 1992 to the winners of the Japan Traditional Art Crafts Exhibition sponsored by the Japan Kogei Association, as well as to the first time winners among them residing in the Kinki area.

## Supporting and Cooperating with the Activities of NPOs and NGOs

Resolving social issues and helping to realize a better society through the efforts of a single company is often difficult to accomplish. Panasonic is committed to building a new society by collaborating with NPOs, NGOs and a variety of stakeholders.

#### Okayama Kibikogen Wheelchair Road Race

The Okayama Kibikogen Wheelchair Road Race is an event held in Kibikogen, Okayama to foster better relationships between people by having wheelchair racers and runners compete on the same course. The contest is held by an organizing committee of sponsors, the logistics for which has been performed by Panasonic Kibi Co., Ltd. since 1996 with the Panasonic Group acting as a cosponsor of the event. Many local volunteers, companies and groups turn out every year to support this major event. In fiscal 2014, more than 1,200 athletes participated in the race on October 13.



#### Management Support for Sign Language Interpretation Skill Testing

Every year in October, the Information and Culture Center for the Deaf conducts sign language interpretation skill certification testing at three locations: Tokyo, Osaka and Kumamoto. Panasonic provides the necessary audio and visual equipment for the testing at each location, and also supplies the testing venue in Osaka. On the day of the tests, Panasonic technicians are on location to provide support, helping to increase the number of sign language interpreters. The 25th test was held in fiscal 2014, and it was taken by 929 people.



#### Co-Sponsor of Shitennoji Wasso Festival

The NPO Osaka Wasso Culture Exchange Association is the main sponsor of the Shitennoji Wasso festival, a parade of ancient cultures in China, Korea and other East Asian countries, to deepen cultural exchange with Japan. It is held every year in November at the site of the Naniwa Palace in Osaka. Panasonic is a co-sponsor of the festival, which encourages international exchange, resembles the spirit of Osaka and energizes the community. Our employees also participate as volunteers in managing the festival. In 2013, more than 1,000 people participated in the parade.



## **Content Index: ISO 26000**

To promote a standardized approach to sustainability reporting, we used the ISO 26000 Core Subjects and GRI G4 Sustainability Reporting Guidelines (pp. 211-218).

For a detailed explanation of the ISO 26000 standard, visit: ▶www.iso.org
For a detailed explanation of the GRI guidelines, visit: ▶www.globalreporting.org

Core Subjects	Issues	Location at Sustainability Report 2014 (PDF)	Relevant Panasonic Engagement
Overenizational	Organizational governance     Dringing and appridentings	p. 6	►Our Unchanging Management Philosophy and Sustainability
Organizational Governance	<ul><li>2. Principles and considerations</li><li>3. Decision-making processes and</li></ul>	p. 13	► Corporate Governance
	structures	p. 23	▶Risk Management
		p. 143	▶ Respecting Fundamental Human Rights
	1. Due diligence	p. 144	▶Fundamental Human Rights of Employees
	Human rights risk situations     Avoidance of complicity	p. 151	▶ Overseas Human Resources and Labor Assessment
Human Rights	<ul><li>4. Resolving grievances</li><li>5. Discrimination and vulnerable groups</li></ul>	p. 146	▶ Prohibition of Child Labor and Forced Labor
ŭ	Civil and political rights     Economic, social and cultural rights	p. 146	▶ Prohibition of Discrimination and Humane Treatment
	Fundamental principles and rights at work	p. 147	▶ Management of Work Hours and Wages
		p. 147	▶ Respect for Freedom of Association, Right to Collective Bargaining
	Employment and employment relationships	p. 156	►Human Resources Development
_abor Practices	Conditions of work and social protection     Social dialogue     Health and safety at work	p. 160	▶Promoting Diversity
	Human development and training in the workplace	p. 166	▶Health and Safety
		pp. 31-33	▶Policy
		pp. 107-108	▶ Environmental Risk Management
		pp. 80-84	▶Chemical Substance Management
		pp. 64-76	▶ Resources Recycling
	1. Prevention of pollution	pp. 77-79	▶Water Resource Conservation
	<ul><li>2. Sustainable resource use</li><li>3. Climate change mitigation and</li></ul>	pp. 43-63	▶CO₂ Reduction
Γhe Environment	adaptation	pp. 85-88	▶ Biodiversity Conservation
	Protection of the environment,     biodiversity and restoration of natural     habitats	pp. 99-100	Contribution to Local Communities and Education for the Next Generation
		pp. 38-42	▶Eco-conscious Products and Factories
		pp. 89-90	► Collaboration across the Supply Chain
		pp. 91-98	► Environmental Sustainability Management across the World
		p. 101	▶Human Resource Development
		p. 137	▶ Prevention of Corruption
	Anti-corruption     Responsible political involvement	p. 137	▶Fair Trade
Fair Operating Practices	<ul><li>3. Fair competition</li><li>4. Promoting social responsibility in the</li></ul>	p. 139	▶ Fair Operating Practices:Performance Evaluation and Development
	value chain  5. Respect for property rights	p. 174	▶Supply Chain:Policy
	, 3	p. 177	▶Supply Chain:Rules and System

Core Subjects	Issues	Location at Sustainability Report 2014 (PDF)	Relevant Panasonic Engagement
		p. 117	▶Product Quality and Safety
Consumer Issues	Fair marketing, factual and unbiased	p. 124	▶Customer Satisfaction
	information and fair contractual practices 2. Protecting consumers' health and safety	p. 130	▶Information Security and Protection of Personal Information
00110011101	Sustainable consumption     Consumer service, support, and	p. 132	▶ Corporate Communications in Advertising
Issues	complaint and dispute resolution  5. Consumer data protection and privacy	p. 34	▶Globalization of the Housing Business
	6. Access to essential services	p. 36	▶Expansion of the Automotive Business
	7. Education and awareness	p. 45	▶Energy-saving /creating/storing Products
		p. 52	▶Energy Solutions
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	p. 182	▶Local Community

## **Content Index: GRI G4 Sustainability Reporting Guidelines**

The Company's Sustainability Report conforms to the core items of the GRI G4 Sustainability Reporting Guidelines.

## **General Standard Disclosures**

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Strateg	y and Analysis		
G4-1	a. Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	p. 5	
Organiz	zational Profile		
G4-3	a. Report the name of the organization.	p. 4	
G4-4	a. Report the primary brands, products, and services.	p. 4	
G4-5	a. Report the location of the organization's headquarters.	p. 4	
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	p. 4	
G4-7	a. Report the nature of ownership and legal form.	p. 4	
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	p. 4	
G4-9	a. Report the scale of the organization.	p. 4	
G4-10	a. Report the total number of employees by employment contract and gender.		
	b. Report the total number of permanent employees by employment type and gender.		
	c. Report the total workforce by employees and supervised workers and by gender.		
	d. Report the total workforce by region and gender.	pp. 4, 154, 163-165	
	e. Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors.		
	f. Report any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries).		
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	p. 148	
G4-12	a. Describe the organization's supply chain.	pp. 173-181	
G4-13	a. Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.	Not applicable	
Commit	ments to External Initiatives		
G4-14	a. Report whether and how the precautionary approach or principle is addressed by the organization.	pp. 23-30	
G4-15	a. List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	pp. 1, 7, 9-11, 134-135, 142, 149- 150, 173, 179-181	
G4-16	a. List memberships of associations (such as industry associations) and national or international advocacy organizations.	pp. 11, 142, 179-181	

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Identific	ed Material Aspects and Boundaries		
G4-17	a. List all entities included in the organization's consolidated financial statements or equivalent documents.		
	b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	Annual Securities Report pages 8-10	
G4-18	a. Explain the process for defining the report content and the Aspect Boundaries.	nn 1 0 11 10	
	b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	pp. 1, 9-11, 12	
G4-19	a. List all the material Aspects identified in the process for defining report content.	pp. 9-11, 12	
G4-20	a. For each material Aspect, report the Aspect Boundary within the organization.	pp. 1, 9-11, 12	
G4-21	a. For each material Aspect, report the Aspect Boundary outside the organization.	pp. 9-11, 12	
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	Not applicable	
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Not applicable	
Stakeh	older Engagement		
G4-24	a. Provide a list of stakeholder groups engaged by the organization.	p. 11	
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	pp. 9-11	
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	pp. 9-11	
G4-27	a. Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concern. Report the stakeholder groups that raised each of the key topics and concerns.	pp. 9-11, 12	
Report	Profile		
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	p. 1	
G4-29	a. Date of most recent previous report (if any).	(Back Cover)	
G4-30	a. Reporting cycle (such as annual, biennial).	p. 1	
G4-31	Provide the contact point for questions regarding the report or its contents.	(Back Cover)	
GRI Cor	ntent Index		
G4-32	a. Report the 'in accordance' option the organization has chosen.		
	b. Report the GRI Content Index for the chosen option.	pp. 211-218	
	c. Report the reference to the External Assurance Report, if the report has been externally assured.		
Assuran	ice		
G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report.		
	<ul> <li>b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided.</li> </ul>	nn 1 220	
	c. Report the relationship between the organization and the assurance providers.	pp. 1, 220	
	d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.		

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Govern	ance		
Governa	ance Structure and Composition		
G4-34	Report the governance structure of the organization, including committees of the highest governance body.     Identify any committees responsible for decision-making on economic, environmental and social impacts.	pp. 13-22	
Ethics	and Integrity		
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	pp. 6, 7, 8	

## **Specific Standard Disclosures**

Disclosures on Management Approach (DMA)

Panasonic places a director in charge of each field of activity corresponding to the seven core subjects of ISO26000 and establishes a management system based on the PDCA cycle (pp. 9-11). Details for the background and the impacts of the material themes that we are currently working on, our management approach for these and the evaluation of the appraoch can be found in the following chapters: Environment (pp. 31-115), Customers (pp. 116-133), Fair Operating Practices (pp. 134-141), Human Rights (pp. 142-152), Labor Practices (pp. 153-172), Supply Chain (pp. 173-181) and Local Community (pp. 182-208).

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assuranc
Economic			
Economic P	erformance		
G4-EC1	Direct economic value generated and distributed	pp. 183-185, See our Annual Report 2014	
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	pp. 43-44	
G4-EC3	Coverage of the organization's defined benefit plan obligations	Annual Securities Report page 111	
G4-EC4	Financial assistance received from government	Not applicable	
Market Pres	ence		
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	pp. 147, 162	
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	pp. 162-164	
Indirect Eco	nomic Impacts		
G4-EC7	Development and impact of infrastructure investments and services supported	pp. 182-208	
G4-EC8	Significant indirect economic impacts, including the extent of impacts	pp. 182-208	
Procuremen	nt Practices		
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	Procurement Policy 7. Improving Global Procurement http://panasonic.net/procurement/ procurement_policy.html	
Environme	ntal		
Materials			
G4-EN1	Materials used by weight or volume	pp. 65-66, 87, 90, 110	
G4-EN2	Percentage of materials used that are recycled input materials	pp. 63, 65, 70-73, 110	
Energy			
G4-EN3	Energy consumption within the organization	pp. 55-58, 110	
G4-EN4	Energy consumption outside of the organization	pp. 45, 61-63, 89-90, 110-111	
G4-EN5	Energy intensity	p. 55	
G4-EN6	Reduction of energy consumption	pp. 38-63, 89-90	
G4-EN7	Reductions in energy requirements of products and services	pp. 38-40, 43-54	
Water			
G4-EN8	Total water withdrawal by source	pp. 78, 110	O*1
G4-EN9	Water sources significantly affected by withdrawal of water	p. 78	
G4-EN10	Percentage and total volume of water recycled and reused	p. 78	
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	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Biodiversity			
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	pp. 85-88	
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	pp. 85-88	
G4-EN13	Habitats protected or restored	pp. 85-88	
G4-EN14	Total number of iucn red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	pp. 85-88	
Emissions			
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	pp. 57-58	○*1
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	pp. 57-58	○*1
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	pp. 45, 61, 111	○*2
G4-EN18	Greenhouse gas (GHG) emissions intensity	p. 55	
G4-EN19	Reduction of greenhouse gas (GHG) emissions	pp. 38-63, 89-90	
G4-EN20	Emissions of ozone-depleting substances (ODS)	pp. 57-58	
G4-EN21	NOx, SOx, and Other Significant Air Emissions	p. 84	
Effluents and	I Waste	'	1
G4-EN22	Total water discharge by quality and destination	p. 78	
G4-EN23	Total weight of waste by type and disposal method	pp. 75-76	O*1
G4-EN24	Total number and volume of significant spills	p. 107	
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention2 Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	p. 84	
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	pp. 78, 85-88	
Products and	d Services		
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	pp. 38-40, 45-54, 66-73, 77, 80-83, 87	
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	pp. 67-73	
Compliance			
G4-EN29	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with environmental laws and regulations	No significant fines known.	
Transport			
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	pp. 61-63	<u></u>
Overall			
G4-EN31	Total environmental protection expenditures and investments by type	p. 112	
Supplier Env	ironmental Assessment		,
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	pp. 89-90	
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	pp. 89-90	

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Environment	al Grievance Mechanisms	1	
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	We currently do not disclose the information, though we address such grievances appropriately.	
Social			
Sub-Catego	ory: Labor Practices and Decent Work		
Employment			
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	We currently do not disclose the information.	
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or parttime employees, by significant locations of operation	pp. 147, 161	
G4-LA3	Return to work and retention rates after parental leave, by gender	We currently do not disclose the information.	
Labor/Manag	gement Relations		
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	p. 148	
Occupationa	al Health and Safety		
G4-LA5	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	p. 167	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	p. 171	
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	We currently do not disclose the information.	
G4-LA8	Health and safety topics covered in formal agreements with trade unions	pp. 166-167	
Training and	Education		
G4-LA9	Average hours of training per year per employee by gender, and by employee category	pp. 158-159	
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	pp. 158-159	
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	We currently do not disclose the information	
Diversity and	d Equal Opportunity		
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	pp. 162-165	
Equal Remu	neration for Women and Men		
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	p. 162	
Supplier Ass	essment for Labor Practices		
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	pp. 173-175	
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	pp. 173-175, 177-181	
Labor Practi	ces Grievance Mechanisms		
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	p. 152	

that underwent human rights screening Total hours of employee training on human rights policies or procedures concorroling aspects of human rights that are relevant to operations, including the percentage of employees trained Aspect: Non-discrimination Total number of incidents of discrimination and corrective Aspect: Freedom of Association and Collective Bargaining G-Perations and suppliers identified in which the right to exercise rights Aspect: Child Labor Operations and suppliers identified in which the right to exercise rights Aspect: Child Labor Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to support the rights of rig		Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
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procedures concerning aspects of human rights that are relevant p. 151  Aspect: Non-discrimination  34-HR3 Total number of incidents of discrimination and corrective critical control of the control of	G4-HR1	agreements and contracts that include human rights clauses or	pp. 142-152	
Total number of incidents of discrimination and corrective actions taken  Aspect: Freedom of Association and Collective Bargaining  Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights  Aspect: Child Labor  Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of rhild labor.  Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of rhild labor.  Operations and suppliers identified as having significant risk for incidents of roced or compulsory labor.  Operations and suppliers identified as having significant risk for incidents of roced or compulsory labor.  Operations and suppliers identified as having significant risk for incidents of roced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.  Aspect: Security Practices  34-HR7  Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations that could affect violations of human rights policies or procedures that are relevant to operations that could affect violations of human rights.  Aspect: Angenci: Aspect: Angenci: Angenc	G4-HR2	procedures concerning aspects of human rights that are relevant	p. 151	
Aspect: Freedom of Association and Collective Bargaining  Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights  Operations and suppliers identified as having significant risk for incidents of child labor.  Aspect: Child Labor  Operations and suppliers identified as having significant risk for incidents of child labor.  Aspect: Forced or Compulsory Labor  Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor.  Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory  Aspect: Security Practices  Aspect: Recurity Practices  Aspect: Indigenous Rights  Aspect: Indigenous Rights  Total number of incidents of violations involving rights of indigenous peoples and actions taken  Total number of incidents of operations that have been subject to human rights reviews or impact assessments  Aspect: Supplier Human Rights Assessment  34-HR10  Percentage of new suppliers that were screened using human rights or interial subject to human rights reviews or impact assessments  Aspect: Human Rights Assessment  S4-HR10  Percentage of new suppliers that were screened using human rights or interial subject to human rights reviews or impact assessments  Aspect: Human Rights Assessment  Aspect: Human Rights Assessment  Aspect: Human Rights Assessment  Aspect: Human Rights Assessments  Aspect: And Percentage of operations with implemented local community engagement, impact assessments, and development programs  Aspect: Anti-corruption  Percentage of operations with implemented local community engagement, impact assessments, and development programs  Aspect: Anti-corruption  Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  Department of the	Aspect: Non-	discrimination		
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Total number of incidents of violations involving rights of indigenous peoples and actions taken  Aspect: Assessment  Total number and percentage of operations that have been subject to human rights reviews or impact assessments  Percentage of new suppliers that were screened using human rights criteria  Significant actual and potential negative human rights impacts in the supply chain and actions taken  Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  Number of operations with implemented local community engagement, impact assessments pp. 182-208  Percentage of operations with implemented local community engagement, impact assessments, and development programs  pp. 182-208  Aspect: Local Communities  G4-SO2  Operations with significant actual and potential negative impacts on local communities  Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  pp. 137-138	G4-HR7	human rights policies or procedures that are relevant to	practices relevant to operations that	
Aspect: Assessment  G4-HR9 Total number and percentage of operations that have been subject to human rights reviews or impact assessments  Aspect: Supplier Human Rights Assessment  G4-HR10 Percentage of onew suppliers that were screened using human rights criteria  G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 137-138	Aspect: Indig	genous Rights		
Total number and percentage of operations that have been subject to human rights reviews or impact assessments  Aspect: Supplier Human Rights Assessment  G4-HR10 Percentage of new suppliers that were screened using human rights criteria  G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures pp. 137-138	G4-HR8		operations that could affect violations	
subject to human rights reviews or impact assessments  Aspect: Supplier Human Rights Assessment  G4-HR10 Percentage of new suppliers that were screened using human rights criteria  G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  G4-HR12 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S01 Percentage of operations with significant actual and potential negative impacts on local communities  G4-S02 Operations with significant actual and potential negative impacts on local communities  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures pp. 137-138	Aspect: Asse	essment		
Percentage of new suppliers that were screened using human rights criteria  G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 137-138	G4-HR9		pp. 149-152	
rights criteria  G4-HR11 Significant actual and potential negative human rights impacts in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  G4-HR12 Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 137-138	Aspect: Supp	olier Human Rights Assessment		
in the supply chain and actions taken  Aspect: Human Rights Grievance Mechanisms  Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  p. 152  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 137-138	G4-HR10		pp. 173-175	
Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 152  pp. 182-208  pp. 182-208  pp. 137-138	G4-HR11	in the supply chain and actions taken	pp. 173-175, 177-181	
addressed, and resolved through formal grievance mechanisms  Sub-Category: Society  Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 152  pp. 182-208  pp. 182-208  pp. 137-138	Aspect: Hum	an Rights Grievance Mechanisms		
Aspect: Local Communities  G4-S01 Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 182-208  pp. 182-208  pp. 182-208  pp. 137-138	G4-HR12		p. 152	
Percentage of operations with implemented local community engagement, impact assessments, and development programs  G4-S02 Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-S03 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04 Communication and training on anti-corruption policies and procedures  pp. 182-208  pp. 182-208  pp. 182-208  pp. 182-208  pp. 137-138	Sub-Catego	ory: Society		
engagement, impact assessments, and development programs  G4-SO2  Operations with significant actual and potential negative impacts on local communities  Aspect: Anti-corruption  G4-SO3  Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-SO4  Communication and training on anti-corruption policies and procedures  pp. 182-208  pp. 182-208  pp. 182-208  pp. 182-208  pp. 182-208  pp. 182-208  pp. 137-138	Aspect: Loca	al Communities		
on local communities  Aspect: Anti-corruption  G4-S03  Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-S04  Communication and training on anti-corruption policies and procedures  pp. 182-208  pp. 182-208  pp. 187-138	G4-SO1	engagement, impact assessments, and development programs	pp. 182-208	
Total number and percentage of operations assessed for risks related to corruption and the significant risks identified  G4-SO4  Communication and training on anti-corruption policies and procedures  pp. 137-138	G4-SO2	on local communities	pp. 182-208	
related to corruption and the significant risks identified pp. 137-138  G4-SO4 Communication and training on anti-corruption policies and procedures pp. 137-138	Aspect: Anti-			
	G4-SO3		pp. 137-138	
G4-S05 Confirmed incidents of corruption and actions taken pp. 137-138	G4-SO4	Communication and training on anti-corruption policies and procedures	pp. 137-138	
	G4-S05	Confirmed incidents of corruption and actions taken	pp. 137-138	

	Indicators	Location and Notes at Sustainability Report 2014 (PDF)	External Assurance
Aspect: Pub	lic Policy		
G4-SO6	Total value of political contributions by country and recipient/ beneficiary	p. 137	
Aspect: Anti	-competitive Behavior		
G4-S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	p. 141	
Aspect: Con	npliance		
G4-SO8	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with laws and regulations	Panasonic reports on its material fines resulting from any non-compliance with laws and regulations in Relevant Press Releases. http://panasonic.net/ir/relevant/	
Aspect: Sup	plier Assessment for Impacts on Society		
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	pp. 173-175	
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	pp. 173-175, 177-181	
Aspect: Grie	vance Mechanisms for Impacts on Society		
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	p. 141	
Sub-Categ	ory: Product Responsibility		
Aspect: Cus	tomer Health and Safety		
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	pp. 117-123	
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	pp. 121-123	
Aspect: Pro	duct and Service Labeling		
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	pp. 93, 96, 132-133	
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	We currently do not disclose the information.	
G4-PR5	Results of surveys measuring customer satisfaction	pp. 128-129	
Aspect: Mar	keting Communications		
G4-PR6	Sale of banned or disputed products	pp. 121-123	
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	pp. 102-103, 132-133	
Aspect: Cus	tomer Privacy		
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	pp. 130-131	
Aspect: Con	npliance		
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	No significant fines known.	

<sup>\*1</sup> For details of the indicators and the contents subject to independent assurance, please refer to the independent assurance report on page 220.

<sup>\*2</sup> The indicators subject to independent assurance are "CO<sub>2</sub> emissions from domestic transportation within Japan" (falls under Category 4) and "CO<sub>2</sub> emissions from the use of major products" (falls under Category 11). For details of the contents subject to independent assurance, please refer to the independent assurance report on page 220.

## **Recognition from Outside the Company**

## Major Recognition in the CSR and Environmental Fields Dow Jones Sustainability Indices

For the ninth year in a row, we were recognized by the Dow Jones Sustainability World Indices (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. Further, in fiscal 2014, Panasonic was named as the Industry Leader of the Leisure Equipment & Products and Consumer Electronics Industry, and as one of the 24 Industry Group Leaders selected from among the other industry leaders in the industry group (Panasonic as the leader of the Consumer Durables & Apparel Industry Group).

Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM

▶DJSI website http://www.sustainability-indices.com/

#### FTSE4Good Index Series

Panasonic Corporation has again been selected 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 for 14 consecutive years since the series was launched.

▶FTSE website http://ftse.com/



#### RobecoSAM Sustainability Rating

Panasonic was awarded the Gold Class distinction, as well as the Industry Leader of the Leisure Equipment & Products and Consumer Electronics Industry in the 2014 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.

#### **CDP 2013**

The U.K.-based non-profit organization CDP (formerly the Carbon Disclosure Project) announced its eleventh survey results on the world's largest companies in regard to greenhouse gas emissions and strategies for climate change in the fall of 2013. Panasonic has been highly scored for its disclosure, and was listed in the Climate Disclosure Leadership Index by CDP Japan.

#### Nikkei Environmental Management Survey

Panasonic was ranked 3rd in the manufacturer category of the 17th Nikkei Environmental Management Survey announced on January 26, 2014. The Company scored particularly high marks in the resources recycling, global warming prevention, pollution control and biodiversity categories.

#### **Environmental Brand Survey by Nikkei BP Eco Management Forum**

Panasonic ranked 5th in the ranking of the 14th Environmental Brand Survey conducted in 2013 by Nikkei BP Eco Management Forum. The Company received high evaluations in a wide range of areas such as energy saving, creation and storage as well as resources recycling.



## Independent Assurance Report

To the Board of Directors of Panasonic Corporation

We were engaged by Panasonic Corporation (the "Company") to undertake a limited assurance engagement of the environmental performance indicators listed in the table below for the period from April 1, 2013 to March 31, 2014 (the "Indicators") included in its Sustainability Report 2014 posted in the Company's website (http://www.panasonic.com/global/corporate/sustainability/en/downloads/back\_number/pdf/2014/sr2014e.pdf) (the "Report") for the fiscal year ended March 31, 2014.

Table: The Indicators subject to independent assurance and corresponding page number in the Report

Indicators	Page
CO <sub>2</sub> emissions from the use of major products	45
CO <sub>2</sub> emissions in production activities	55
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities	58
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities (Scope 1 emissions)	58
Total GHG emissions (CO <sub>2</sub> -equivalent) in production activities (Scope 2 emissions)	58

Indicators	Page
CO <sub>2</sub> emissions from non-manufacturing sites	58
CO <sub>2</sub> emissions from domestic transportation within Japan	61
Total wastes	75
Amount of water consumption in production activities	78
Release/Transfer of substances requiring management	84

#### The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Company's website (http://www.panasonic.com/global/corporate/sustainability/en/downloads/back\_number/pdf/2014/review2014e.pdf), which are derived, among others, from the Environmental Reporting Guidelines of Japan's Ministry of the Environment.

#### **Our Responsibility**

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have 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', 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' of the Japanese Association of Assurance Organizations for Sustainability Information. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing 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 recalculating the Indicators.
- Visiting to one of the Company's production sites selected on the basis of a risk analysis.
- Evaluating the overall statement in which the Indicators are expressed.

KPMG AZSA Sustainability Co., Ltd.

#### 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.

#### Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

Osaka, Japan

July 14th, 2014

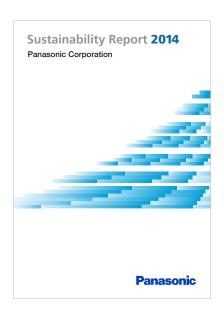
## **Reports on Business Activities of Panasonic**

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

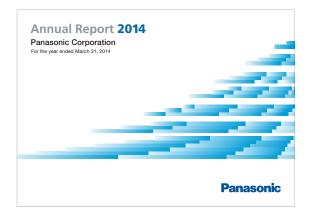
http://www.panasonic.com/global/corporate/sustainability/



### **Annual Report [PDF]**

Available on our IR website.

►http://panasonic.net/ir/



## **Panasonic**

## Inquiries

Panasonic Corporation CSR & Citizenship Group / Environment & Quality Center 1-5-1, Higashi-Shimbashi, Minato-ku, Tokyo 105-8301, JAPAN

Date of issue: July 2014