Kansai Electric Power Group

CSR Report 2011



Kansai Electric Power Group and its pledge to stakeholders

The Kansai Electric Power Group aims to become the No. 1 company in customer satisfaction in its business areas, built around energy, which are foundational to people's lifestyles and society as a whole. Through its various business activities, the Group will respond to stakeholders' requirements and expectations while obtaining their trust and understanding, and will contribute to the development of a sustainable society.



Group companies (Consolidated subsidiaries and companies to which the equity method is applied) (as of March 31, 2011)

Integrated energy supply

Kanden Energy Solution Co., Inc. SAKAI LNG Corp. Kanden Energy Development Co., Inc. ECHIZEN ENELINE CO., INC. Two other companies

Information and telecommunications (IT)

K-Opticom Corp. K Cable Television Corporation Inc. Kanden System Solutions Co., Inc. Four other companies

Comfort and Safety services in daily life

KANDEN FUDOSAN CO., LTD. Clearpass Co., Ltd. KANDEN Security of Society. Inc. Kanden E House Corp. KANSAI Medical Net Co., Inc.

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Kanden Joy Life Co., Ltd. Kanden Building Management Co., Ltd. Urban Service Co., Ltd. El Suehiro Food Service Co., Inc. KANDEN AMENIX Corp. MID Urban Development Co., Ltd. Five other companies

Group business support, etc.

Kanden Engineering Corp. NIHON NETWORK SUPPORT CO., LTD. Kanden Plant Corp. The Kurobe Gorge Railway Co., Ltd. NEWJEC INC. Institute of Nuclear Safety System, Inc. Nuclear Engineering, Ltd. THE GENERAL ENVIRONMENTAL TECHNOS CO., LTD.

The Kanden Services Co., Inc. Kanden Joinus Co., Ltd. Kanden CS Forum Inc. Kanden Office Work Co. Inc. Kanden Power-Tech Corp. The Kanden L & A Co., Ltd. Kanden EL Auto System Co., Ltd. KANDEN GEO-RE Inc. KPIC Netherlands. B.V. Kanden L-Heart Co., Inc. Kansai Electric Power Australia Pty. Ltd. Kansai Electron Beam Co., Ltd. ENEGATE Co., Ltd. KINDEN CORPORATION San Roque Power Corporation JAPAN NUCLEAR FUEL LIMITED Two other companies

Editorial policies

- This report provides a clear explanation of the CSR initiatives of the Kansai Electric Power Group for the Group's stakeholders
- The Special Feature pages highlight Kansai Electric Power's initiatives in response to the Great East Japan Earthquake. while the remainder of the report is divided into sections based on the Company's six Action Principles, outlining the progress that has been made in each area.
- This report is being published in both online and print formats. When information relevant to an item included in the printed version is available online, the relevant URL is provided.

Web The Kansai Electric Power Group's corporate vision http://www.kepco.co.jp/corporate/vision/index.html

Scope of report

Period covered: April 1, 2010, to March 31, 2011. (Important items from outside this period have also been included in the report.) Companies covered: The Kansai Electric Power Co., Inc., and

Kansai Electric Power Group companies. Areas covered: economic, social, environmental

Report publication date

Published December 2011

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2012 edition to be published in the autumn of 2012.

Guidelines Referenced

GRI's "Sustainability Reporting Guidelines," Version 3 Ministry of the Environment's "Environmental Reporting Guidelines" (2007 Version)

• To find out more about the Kansai Electric Power Group, we recommend reading the following publications.



Web Detailed information on the Group's CSR and environmental initiatives http://www.kepco.co.jp/corporate/csr/charter.html

Website for detailed financial information http://www.kepco.co.jp/ir/index.html

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Continuing to serve customers and communities by maintaining CSR as a firmly held value



Marlow Jacqi

Kansai Electric Power Co., Inc. President and Director Makoto Yagi

З Kansai Electric Power Group CSR Report 2011

Response to the Great East Japan Earthquake

On behalf of the Kansai Electric Power Group, I would like to express my sincerest condolences to all of those who were affected by this year's Great East Japan Earthquake and to let you know we are all praying for the earliest possible recovery of the region

Since the earthquake, the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant and subsequent planned blackouts have significantly shaken people's faith in the electric power industry, and in nuclear power in particular. We and the entire electric power industry are deeply cognizant of the grave nature of this situation.

The Kansai Electric Power Group has been doing its utmost to support recovery in the affected region. With a renewed perspective on the importance of our responsibility to provide one of society's lifeline services, we are putting our full strength behind efforts to ensure a safe and stable supply of electricity. Particularly in the field of nuclear power, we are making every effort to ensure that our active plants are continuing to be operated in a safe and stable manner, that safety countermeasures are being implemented based on the lessons of the Fukushima Daiichi Nuclear Power Plant accident, and that steps are being taken toward the goal of remobilizing plants whose operations have been suspended.

In addition to implementing a variety of such measures, we are explaining the situation in a way that everyone can understand so as to cultivate public understanding and confidence. In this way, taking one step at a time, we are working to restore people's faith in the electric power industry.

Due to delays in the remobilization of nuclear plants that had been undergoing inspections nationwide, we were left with little choice but to ask for our customers' cooperation in conserving energy this past summer with the aim of stabilizing the supply and demand of electricity.

I once again would like to apologize for the inconvenience and trouble we have caused our customers, and to thank them most sincerely for their remarkable understanding and cooperation. Going forward, we will continue to do everything we can to ensure stability in the supply and demand of electric power.

Our unchanging mission

Continue to serve customers and communities

Since it was founded 60 years ago, the Kansai Electric Power Group has provided a solid foundation for its customers' lives and industrial activities by providing a safe and stable supply of goods and services, primarily centered around electrical power. The group has managed its business in such a way as to fulfill its mission of contributing to the sustainable development of society

Since the Great East Japan Earthquake, the business environment facing the Group has become considerably more challenging, with moves being made to revise the nation's energy policies and an increasing sense of uncertainty about the future of the economy. To fulfill its unchanging mission of "serving customers and communities," even under these conditions, the Group will continue to work as a unit toward implementing future-focused efforts based on the Kansai Electric Power

Group Long-Term Growth Strategy 2030 and its related action plan, the Kansai Electric Power Group Medium to Long-Term Plan, both of which were established last year.

Our corporate social responsibility

Unshakable, firmly held values

We have identified corporate social responsibility (CSR) as one of the "firmly held values" that must be adhered to by the Kansai Electric Power Group in our Long-Term Growth Strategy.

CSR means none other than diligently fulfilling the responsibilities that are ours to fulfill as a member of society. This is achieved when each and every member of the Kansai Electric Power Group thinks about issues from the perspective of its customers and other stakeholders, and conscientiously performs the work assigned to them with a sense of mission and purpose. We will continue to serve our customers and communities by recognizing CSR as one of our unshakable, firmly held values, no matter the environmental changes we face.

Promoting CSR

Conscientious CSR practice

To conscientiously practice CSR, each and every member of the Kansai Electric Power Group must enhance their understanding of CSR, and workplaces must promote a culture in which CSR awareness is a regular part of job performance. We are therefore developing strategic activities in our workplaces around CSR leaders, including discussions and case study trainings aimed at improving the workplace culture.

I also will be visiting as many workplaces as possible so that I can repeatedly convey the nature and importance of CSR, based on my own impressions, in the context of a direct dialogue with employees.

We are striving to cultivate personnel and develop workplace environments where everyone can feel stimulated and motivated in their work. For example, in June of this year, we developed a framework aimed at "diversity promotion," to take maximum advantage of the diverse personalities and strengths of individual employees.

Through the CSR Report

Working toward closer communication

Through this report, we hope to foster closer communication with our various stakeholders. The pages that follow include feature articles that explain our recent appeals for energy conservation and the Group's efforts in response to the Great East Japan Earthquake.

This report also describes the Group's initiatives as specifically as possible in accordance with the six action principles established to guide its CSR practice. This edition features specific efforts undertaken in various workplaces and reflections on those efforts provided by individual workers. These can be found in the "CSR Highlight" section of each chapter.

I hope that after reading this report, you will feel free to share your frank and honest opinions about future issues that need to be addressed, your expectations to the Group, and any other topics that you would like to bring to our attention.

Overview of Kansai Electric Power





Notes: 1. The fiscal year-end power source composition includes electric power received from other companie 2. The power source composition is the composition ratio of our electricity output

- 3. Due to rounding, the totals may not equal 100%.

System map (as of March 31, 2011)

Supply area:



Kansai Electric Power Group Management and CSR

To continue fulfilling its mission, unchanged since its inception, of "serving customers and communities," the Kansai Electric Power Group develops all of its business activities from a fundamental platform that views CSR as a firmly held principle of the entire Group.



Our Management Philosophy and Ideal

Immediately after Kansai Electric Power was founded in 1951, its first president, Shiro Otagaki, called for it to maintain a "Maedaregake Spirit" (the spirit of consideration for and service to others) as a private-sector company. This encapsulates the Kansai Electric Power Group's approach to what is now called CSR. The "good sense, diligence, and friendship" that Shiro Otagaki inculcated in all employees for the "cultivation of a good corporate culture" have been maintained and passed down in the form of the Corporate Creed. Following major changes to the management environment and business structure, the Kansai Electric Power Group Management Vision was formulated in 2004. It specified being "No. 1 in customer satisfaction" as the "ideal enterprise state," announced the Kansai Electric Power Group CSR Action Charter, which is comprised of six CSR Action Principles for achieving that ideal state, and clarified a management vision centered around CSR. To help the Group continue to fulfill its unchanging mission of "serving customers and communities," even in the midst of the massive changes in the business environment that are being anticipated for the future, in 2010 we formulated the Kansai Electric Power Group Long-Term Growth Strategy 2030 and clarified what we want the Group to look like in 2030. Even this strategy puts CSR, a firmly held value of the entire Group, at its core, reflecting how the Group has in the past and will continue in the future to approach management from a solid foundation of CSR.

The Kansai Electric Power Group CSR Action Charter

The Kansai Electric Power Group's business activities draw support from customers, regional communities, business partners, shareholders, investors, employees and many other segments of society. This trust the Group earns from all these communities is the very bedrock of the Group's operations, without which it would be unable to maintain sustainable growth and fulfill its mission. By fulfilling its responsibilities as a member of the community and faithfully meeting the expectations of the community as a business, the Group contributes to sustainable development while reinforcing that hard-earned trust. Thus, the Kansai Electric Power Group develops all of its business activities and fulfills its social responsibilities as an enterprise based on its six CSR Action Principles.

CSR Action Principles

- 1. Safe, Stable Delivery of Products and Services
- 2. Progressive Approach to Environmental Problems
- 3. Proactive Contributions to Development of Local Communities
- 4. Respect for Human Rights, Development of Favorable Work Environments
- 5. Highly Transparent and Open Business Activities
- 6. Strict Enforcement of Compliance

 Web
 Kansai Electric Power Group Management Vision http://www.kepco.co.jp/corporate/vision/index.html

 Kansai Electric Power Group CSR Action Charter http://www.kepco.co.jp/corporate/csr/charter.html

 Kansai Electric Power Group CSR Action Standards http://www.kepco.co.jp/corporate/csr/standards.html

 Kansai Electric Power Group Long-Term Growth Strategy 2030 http://www.kepco.co.jp/corporate/strategy/index.html

 Kansai Electric Power Group Medium to Long-Term Plan http://www.kepco.co.jp/corporate/ml_plan/index.html

 Kansai Electric Power Procurement Activities http://www.kepco.co.jp/corporate/ml_plan/index.html

The Kansai Electric Power Group CSR Action Standards

Directors and employees recognize at all times that they are members of the Kansai Electric Power Group, always maintaining the propriety and dignity appropriate to that station and acting in the best interest of society. In carrying out the Group's operations, directors and employees maintain safety as their

first priority, strictly comply with all relevant laws, corporate ethics and social rules, conduct their duties diligently, and make every possible effort to make the customer happy.



Carrying the Conduct Card

Every employee has been issued with a Conduct Card to carry, which is printed with the Kansai Electric Power Group Management Vision and CSR Action Standards. Employees fill in their own action targets on the reverse side and use the card to check their actions and targets in their everyday business activities.

CSR Procurement Policy

Aiming at the best suited formulation, maintenance and operation of our equipment, the Purchasing Department of Kansai Electric Power timely and ecologically procures equipment, materials and services that excel in safety, quality and price. Through these procurement activities, we drive forward corporate social responsibility.

As our procurement activities are supported by all our valued business partners, we believe that working to build mutual trust and forging the stronger-than-ever partnership will directly lead to the promotion of CSR activities. The Purchasing Department of Kansai Electric Power sets and practices "Behavioral Standards for the Procurement Activities." We strive to ensure our partners understand the "Behavioral Standards for the Procurement Activities" and practice "Requests for the Suppliers" in a proactive manner.

- 1. Highest priority to the safety, maintenance and improvement of quality and technical strength Viewing safety as our highest priority, we will make efforts to help maintain and improve our quality and technological capabilities to ensure that we are creating, maintaining, and utilizing equipment and facilities in an optimal manner.
- Being environmental-friendly
 We promote the procurement of environmentally friendly
 equipment, materials and office supplies (green purchasing), and
 work in cooperation with our business partners to contribute to
 the creation of a recycling-oriented society.
- 3. Establishment of fiduciary partnership

By striving to improve our supply chain in collaboration with our business partners, we are building strong, trusting relationships with those partners and working toward our mutual growth and development.

4. Transparent, open business activities

To procure equipment, materials and services that offer excellence in terms of safety, quality, and price, within the appropriate time frame, we open our doors widely to suppliers both inside and outside of Japan. We select business partners fairly and equitably, based on their safety, quality, technological capabilities, consideration for the environment, price, delivery and work schedule reliability, and maintenance and management conditions, even as we consider issues of economic as well as social rationality.

5. Full compliance

We obey all relevant laws and the spirit of those laws, particularly those laws that are related to safety and respect for human rights (e.g., prohibitions against child labor and coerced labor). We are fully committed to the strict management of personal and confidential information. We will not engage in any behaviors that support the activities of criminal organizations that pose threats to social order or safety.

Corporate governance

The Kansai Electric Power Group aims for further growth based on a firmly held vision of CSR. Recognizing the importance of transparency and soundness of business operations in achieving this goal, the Group aims to strengthen its corporate framework.

Basic system of corporate governance

Kansai Electric Power has a number of committees, such as the meetings of the executive directors, the CSR Promotion Council and the Risk Management Committee, which oversee and ensure the appropriate execution of duties. These committees operate under the supervision of the Board of Directors, which is appointed at the General Meetings of Shareholders. The Company also employs corporate auditors, a Board of Auditors and accounting auditors. From each of their professional perspectives, these auditors confirm that the Company executes its operations in an appropriate and lawful manner. This system constitutes the foundation of Kansai Electric Power's corporate governance system.

Assurance of appropriate execution of business matters

Kansai Electric Power takes proactive steps to enhance its corporate governance capability on an ongoing basis. Board of Directors meetings are convened regularly once each month, complemented by extraordinary meetings held when deemed necessary, and it is here that matters of essential importance to Group management are deliberated and decided. In addition, all Directors are continuously supervised through regularly issued reports on the execution status of the duties incumbent upon them.

In executing important business matters, the Company implements swift and proper decision-making by convening meetings of the executive directors regularly—in principle once every week—in order to implement efficient and effective corporate management.

The system of executive officers was introduced in order to separate the executive and supervising functions of management and to boost the speed and efficiency of business execution.

Assurance of transparency and soundness

Kansai Electric Power uses a system of Corporate Auditors to audit continuously and effectively the appropriateness and adequateness of Directors in the performance of their duties. The Corporate Auditors attend important meetings, including Board of Directors meetings and Executive Meetings, where they state their opinions, listen to explanations by the Directors pertaining to matters of importance to Company management, and look into the business and assets status of the Company's main bases of operation and Group companies. Through auditing, the Corporate Auditors ensure the transparency and soundness of the Company's business operations. In addition, meetings are regularly convened between the Corporate Auditors and Representative Directors, et al., as a way of promoting exchanges of opinion.

To support the duties of the Corporate Auditors and Board of Auditors, an Auditing Office (12 members) has been established. This is a specially appointed organization in charge of actual auditing duties, operation of Board of Auditors meetings, etc. To ensure the Office's independence, it functions directly under the Corporate Auditors and does not perform any other duties relating to the executive functions of the Group. Outside officers have also been appointed: three Directors and four Corporate Auditors, the latter representing a majority among the seven Corporate Auditors in total. Outside Directors and outside Corporate Auditors have no special rights or interests in the Company and retain independence.

Enhancement of internal auditing functions

Kansai Electric Power has established an Internal Auditing Committee whose functions are to share and deliberate a broad range of management issues relating to quality and safety, secure views and information from outside the Company and, from an impartial and specialized standpoint, maintain proper internal auditing of the Kansai Electric Power Group as a whole.

An Office of Internal Auditing, consisting of 42 members, has also been established as an organization specially assigned to perform internal auditing. The office conducts regular auditing of risk management systems, risk management status, etc., and submits proposals or reports to the Executive Meetings concerning internal auditing plans and their results. At the various work areas, activities needed for making improvements in light of the auditing results are carried out in an ongoing quest to ensure proper business management.

As the vital overseers of corporate governance, the Office of Internal Auditing, Corporate Auditors, and Accounting Auditors coordinate, at their discretion, in the performance of auditing duties. They also maintain close ties for exchanging views regarding auditing results, etc.



Risk management

Management of risk accompanying business activities

In line with the Kansai Electric Power Group Risk Management Rules, risk accompanying business activities is, in principle, managed autonomously by the executive section of each respective business division. In cases of risk deemed to be important across multiple organizational levels, risk management is strengthened by determining risk management items by field of specialty, after which experts in each field provide advice and guidance to the various business execution divisions. In addition, a Risk Management Committee has been formed to manage risk comprehensively. The Committee strives to manage risk accompanying Group business activities at the level deemed appropriate in each case. Based on this risk management system, the Company carries out appropriate financial reporting and ensures the trustworthiness thereof, as stipulated in the Financial Instruments and Exchange Law.

Risk Management System



CSR Promotion System



CSR Promotion System

The CSR Promotion System centering on the CSR Promotion Council

Kansai Electric Power has a CSR Promotion Council in place, chaired by the Company's president. These meetings establish the general policies and activities that guide the entire Group in promoting CSR, provide general coordination of specific activities, and serve to encourage implementation. Issues of a specialized nature are sent to committees, such as the Compliance Committee and the Environmental Board, for deliberation.

The policies formulated by the CSR Promotion Council are communicated to each sector and operating location, and activities are deployed. Each Group company develops its own CSR promotion activities independently, while sharing information with Kansai Electric Power.

Compliance Committee

The Compliance Committee formulates our Company's general policies regarding compliance and promotes the coordination and implementation of specific policies. A Compliance Activity Plan, formulated every year through the Committee's deliberations, is converted into concrete form in the action plans related to the business activities of the various head office divisions and branches, and is put into practice in the form of on-site training sessions and legal compliance status checks. The Compliance Consultation Desks, which have been installed by this committee, examine and respond to inquiries regarding compliance made by employees.

The Committee then uses the reports it receives to ensure that the PDCA cycle is being followed with regard to these activities.

Environmental Board

The Environmental Board promotes progressive efforts to address environmental problems across the entire organization. It implements environmental management activities based on various environmental policies, and formulates specific action plans related to recycling-oriented business activities.

In addition, the committee checks and reviews specific action plans, and promotes sound responses to environmental problems.

Safe, Stable Delivery of Products and Services

Our mission and responsibility as a lifeline service provider

The "best mix" of power sources and their stable, long-term supply

Because Japan has a lack of natural resources and a fragile energy structure that relies on imports and special energies, Kansai Electric Power is working on creating an effective mix of various types of energy sources.

Specifically, we are comprehensively exploring energy security, environmental soundness, and economic efficiency, while maintaining a primary focus on ensuring safety, as we strive to create an optimal, balanced power source composition that combines nuclear power generation with thermal power generation, hydropower generation, and various renewable energies.



Notes:

- The composition ratios for FY 2020 were calculated based on our FY 2011 Electric Power Supply Plan (dated March 28). Should revisions to the plan become necessary, the appropriate adjustments will be made.
- 2. The fiscal year-end power source composition ratio includes electric power received from other companies.
- The power source composition ratio is the composition ratio of our company's electricity output to demand.

4. Due to rounding, the totals may not equal 100%.

Stable fuel procurement

In the procurement of fuel for thermal power plants, we are aiming to optimize our purchasing balance of crude oil, LNG, and coal while accommodating changes in electric power demand. Particularly in the case of LNG, we are diversifying suppliers and contract terms, and are making efforts to create an integrated system that extends from gas production to importing and receiving, through the acquisition of upstream interests and ownership of our own LNG carriers. In addition, we are maintaining procurement flexibility by acquiring dedicated coal carriers and our own domestic oil carriers. These measures are expected to facilitate the stable procurement of fuel and help reduce costs over the long term.

We also are striving to achieve more stable nuclear fuel procurement by participating in a uranium mine development project in Western Australia, securing upstream interests, and investing capital in a uranium enrichment plant.



Exterior view of the Pluto LNG Project onshore plant (Western Australia)

To provide higher-quality electric power

To ensure a safe and stable electric power stably, Kansai Electric Power works to operate power grids that provide a reliable link between power stations and consumers and enable an optimal configuration of facilities. We are also engaged in rigorous efforts to prevent accident recurrence, as a result of which Kansai Electric Power achieved one of the world's highest levels of power supply reliability in FY 2010.

The Company is continuing to develop and install new technologies and construction methods to ensure that accidents are prevented and to enable swift recovery in the event an accident does occur.

In response to public demand, we are striving to create a flawless supply system, thereby contributing to the continuing development of the Kansai region.



Tireless efforts to create a safety culture

We believe that safety is the core of all our business activities and the basis upon which the public places their trust in us. It is essential to improving the quality of all our business activities and to our future growth. We will therefore continue working tirelessly to ensure that safety assurance is given the highest priority in our business activities so that we can continue achieving results in this area. Through daily interactive communication with all of the business partners that sustain the Kansai Electric Power Group, including its partner companies, we promote the sharing of information and mutual education related to safety awareness, as well as risk reduction activities. We are thus working to create an unshakable culture of safety at even higher levels throughout the group (Kansai Electric Power Safety Culture Zone).

Training the personnel who support safe and stable supply functions

To enable us to provide products and services in a safe, reliable manner, Kansai Electric Power recruits staff yearly on a continuous basis and implements continued, systematic, repeated education and training with the aim of nurturing specialist personnel. We are promoting a range of initiatives to ensure that technologies and skills are maintained and passed on. These include our expert technician system and a system for ascertaining the technological capabilities of individual employees. In doing so we hope to ensure that the technologies and skills our personnel have built up thus far will be passed on to the entire Group and further improved upon.

Efforts by Group companies to ensure a safe and stable supply

To ensure the safe and stable delivery of electricity and other services to our customers, each Group company promotes its own independent activities with regard to the construction, maintenance, management, and use of facilities. Here we highlight several of those efforts.

When disaster strikes, our expertise facilitates the rapid recovery of facilities

Kanden Engineering Corporation is involved in every stage of the electricity delivery process, from hydropower stations to electricity transmission, transformation and distribution, engaging in new construction, expansion, renovation, and maintenance and inspection activities at electricity distribution facilities. Using the reliable technological skills and high construction quality that it has cultivated since its founding in 1940, this company plays an important role in the safe and stable supply of electricity.

Kanden Engineering has established a construction system at each base of operations within Kansai Electric Power's service area. When a disaster strikes, the company is able to contribute to the fastest possible restoration of electric power by mobilizing that construction system, which is already well established in the region and which utilizes personnel who are familiar with the equipment and who can respond quickly.



Work being performed at a substation

Safety initiatives in the gas business

Kansai Electric Power is developing its gas business primarily in the urban areas within its service area, and is making every effort to offer safety assurances to customers so that they will feel safe and confident using their gas services. Specifically, we have built a security system comprised of 14 locations, including power plants and operation and maintenance offices, and we conduct security activities that include inspections required by such laws as the Gas Business Act, as well as regular checks on customer equipment. We are also working to expand our regular educational activity opportunities and our company-wide disaster drills, and to strengthen our technological capabilities, including our accident response capacity.

We hold safety meetings, which include joint drills with customers, and give customers instructions regarding their initial response to a disaster and the importance of shutting off their gas supply valve. We hope that these efforts will even further contribute to our customers' safety.



Training in shutting off gas valves in an emergency

Preparing for natural disasters and influenza outbreaks

Based on our mission of the stable provision of electric power, Kansai Electric Power is engaged in initiatives for "strengthening facilities to withstand disaster" and "establishing a disaster control system to enable rapid recovery" as basic measures for dealing with natural disasters such as earthquakes, typhoons, snow damage, heavy rain, and lightning damage. Also, in recent years the Company has also been developing measures to deal with the outbreak of new strains of influenza, and we are building systems to ensure the stable delivery of electricity to customers even in the event of a pandemic.

Strengthening facilities for disaster resistance

Thanks to lessons from past natural disasters, electrical distribution equipment is today designed to sustain minimal damage even in the event of earthquake, typhoon or other such occurrence. Also, the power distribution system covers the Kansai region like a fine mesh net. In the unlikely event of damage occurring to some of the routes on this network, power can be supplied quickly from alternative connecting routes.

Disaster control system to enable rapid recovery: comprehensive preparations for every eventuality

In the event that power supply facilities are damaged as the result of a disaster, or upon actually detecting such damage, a disaster control system, as described below, will immediately be established to deal with the situation. The Company gathers and distributes information both from within the Group and from other sources, and determines recovery policy, in promotion of recovery activities.



Emergency Disaster Measures Headquarters at the Company's head office

Disaster control system

Organization	Criteria for establishment
Disaster Alert Headquarters	Cases where a disaster such as a typhoon is predicted
Emergency Disaster Measures Headquarters	When a disaster strikes Occurrence of an earthquake with an intensity of 6-lower or greater (Japanese scale) within our power supply area

Initiatives prioritizing safety at nuclear power plants

Necessity and features of nuclear power

Guaranteeing energy security

Japan is an energy-poor country: if nuclear power is excluded its self-sufficiency rate is only 4%, with the remaining 96% imported from overseas (figures from Ministry of Economy, Trade and Industry's Energy White Paper 2010). Although energy resource prices were relatively stable in FY 2010, this situation is likely to change given the anticipated growth in future energy demand from the developing nations. This suggests that it is necessary to secure resources in order to ensure the reliable provision of electricity.

Securing resources through the nuclear fuel cycle

Unlike oil or natural gas, the uranium used at our nuclear power plants is widely distributed throughout the world. Since many of the producing countries have stable political environments, it is a resource that offers a high level of supply stability. Because of its high energy density, it is also easy to transport and facilitates the stockpiling of energy resources.

We are able to collect useful resources such as uranium and plutonium by reprocessing the fuel used at our nuclear power plants. This also helps us maintain our stable access to resources.



Nuclear power generation does not produce CO₂ emissions

As nuclear power generation utilizes the heat produced when uranium undergoes nuclear fission to generate electricity, like solar and wind power generation, it produces no CO₂ emissions when producing electricity. This makes it extremely useful in curbing global warming.

Plu-thermal initiative

Spent uranium fuel from nuclear power plants is sent to reprocessing plants and its reusable substances (uranium and plutonium) recovered for use as MOX (mixed oxide) fuel. The process in which existing nuclear power plants use this fuel is known as the "plu-thermal" process.

Kansai Electric Power loaded MOX fuel into the Takahama Power Station Unit 3 in December 2010, and has been fully operating the plant since January 2011.

In the future, we will move forward in promoting our pluthermal plans by placing the highest priority on safety and seeking the understanding and cooperation of local residents.

Moving forward on plu-thermal plans

To guarantee the quality of MOX fuels, rigorous checks are performed at each step. The MOX fuel procurement process is being revised based on actual initial production results.

Safe operation of nuclear power plants

Kansai Electric Power is implementing a variety of measures to minimize risk and ensure sufficient safety at its nuclear power plants.

Design and function to maintain safety

The facilities at nuclear power plants utilize the concept of multiple protection to confine radioactive materials. To start with, the facilities are constructed to even stricter standards than those laid down by law, and their designs include fail-safe systems¹ and interlock systems², premised on the fact that machines break down and human beings make mistakes, in order to prevent a malfunction or human error from resulting in an accident. In the unlikely event of a malfunction occurring, safety measures are implemented at multiple levels, and multiple safety functions come into action: the abnormality is detected at an early stage and the nuclear reactor shuts down automatically, and large amounts of water are injected to cool the fuel and radioactive materials being contained within fivefold walls³.

In addition, based on the nuclear accident at TEPCO's Fukushima Daiichi nuclear power plant that occurred in March 2011, we promptly took the measures we could at our own nuclear power stations. As new information becomes available, we will continue to take any measures necessary.

Notes:

- Fail-safe systems are designed to shift in the direction of safety in order to avoid dangerous situations when a mechanical malfunction should occur.
- Interlock systems utilize a system whereby a mistaken operation is not transmitted to related equipment even in the event that a human being makes a mistake when operating it.
- Fivefold walls consist of five layers of walls to contain radioactive materials, and are used in pellets, cladding pipes, reactor pressure vessels, the containment vessel, and the concrete covering containment vessel.

Safety measures in nuclear power plants (multiple protection)



Stringent implementation of measures for long-life usage of facilities

In order to ensure long-life usage of its facilities, Kansai Electric Power conducts technical inspections of age-related changes (Evaluation of Long-Life Usage Technology) at nuclear power plants that have been in operation for more than 30 years, and has established a Long-Term Maintenance and Management Policy to be reflected in preservation activities. These technical inspections of aging-related changes are re-evaluated every ten years.

In June 2010, we received approval from the Minister of Economy, Trade and Industry (METI) for our Evaluation of Long-Life Usage Technology and our Long-Term Maintenance and Management Policy for the Mihama Power Station Unit 1, which had been in operation for 40 years as of November 2010. We developed an operating plan for a maximum of 10 more years, which falls within the scope of our Long-Term Maintenance and Management Policy, and Fukui Prefecture and the municipality of Mihama-cho approved this plan in November 2010. In July 2012, Unit 2 will also reach its 40th year of operation, and we are currently investigating a future operating plan for that reactor unit in accordance with the prescribed procedures.

Flowchart of initiatives in long-life usage of facilities



Activities to train safety awareness

To improve employees' skills in operating, maintaining and inspecting nuclear power plants, the Company launched education and training programs for employees at the institutions below.

Training at the Nuclear Power Training Center (Takahama, Fukui Prefecture)

Using realistic mockups of actual equipment installed in nuclear power plants, employees practice maintenance and inspection. To

ensure that past troubles are never repeated, the parts that were factors in previous failures are used in instruction, aiming to prevent human error, prevent abnormal conditions and detect any problems early. Because the Center offers a close look at the internal structures of nuclear power plants, which cannot normally be visited and viewed, it attracts some 4,000 visitors each year.



Practicing a major inspection on a nuclear reactor using a mock-up of a reactor vessel

Training at the Nuclear Power Operating Support Center (Ohi, Fukui Prefecture)

The Nuclear Power Operating Support Center offers a suite of highly advanced training facilities. An operational training simulator enables trainees to review a wide range of operating scenarios and even watch video of their own training. By reviewing and experiencing realistic simulations of abnormal scenarios, operators of nuclear power plants can bolster their skills.

The simulator is used not only for training, but also for many

other tasks in operation that cannot be confirmed on actual plant equipment. For example, it is used to check information when revising operating manuals.

Since its opening, the center has trained over 4,000 operators



Safety culture cultivation activities presented at the IAEA International Conference

In June 2010, the IAEA International Conference was held in Vienna to share information on the operational performance of nuclear power plants. Kansai Electric Power reported on its safety culture cultivation activities, and its management of the Mihama Nuclear Power Station including reference to the results of its Operational Safety Review Team (OSART) evaluation.

To create an unshakeable safety culture, we will continuously make every effort to improve the safety and reliability of our nuclear plants through introducing our safety culture activities at international conferences and incorporating up-to-date best practices identified by international organizations.



Presentation at the IAEA conference

Implementation Status of Kansai Electric Power Measures to Raise Safety Levels based on Fukushima Daiichi Nuclear Power Station Accident Secure emergency power supplies The Kansai Electric Power is promptly implementing these measures to raise safety levels and will quickly and appropriately add and implement any necessary measures as new Augment power lines (scheduled upgrades) (To be implemented on a medium/long-term basis) information is obtained going forward. Connect one 77 kV additional line to Ohi Units 3 and 4 (Planned completion in approximately three years) Implement seismic isolation measures for long-rod and support insulators on Ensure cooling capabilities Measures for severe accident management for reactor cores 77 kV power line towers (Implementation planned for fiscal 2011) Conduct measures to prevent a hydrogen explosion from damaging facilities Conduct measures to prevent a hydrogen Conduct assessments of embankment collapse, landslides and mudslides on Establish procedures for maintaining operations by supplying power explosion from damaging facilities steep slopes in areas around towers (Assessments planned to be conducted by the Conduct special inspections from backup power generators to hydrogen combustion equipment Install equipment that reduces hydrogen end of October 2011 during refueling outage (already installed) (Completed for Ohi Units 1 and 2 in June 2011) concentrations without the need for Replace 77 kV switches with more compact, watertight switches Inspect emergency reactor core Establish procedures for maintaining operations by supplying power to electricity (static catalytic hydrogen (Planned completion in approximately three years at Mihama Plant) cooling systems and containment exhaust fans that blow outside in order to prevent the accumulation of recombiners) (Installation planned at Enclose backup 77 kV emergency transformer and switches in indoor facilities spraying (Inspections of Mihama Unit hydrogen that has leaked from containment vessel to adjacent space plants other than Ohi Units 1 and 2 in (Planned completion in approximately three years at Mihama Plant) 1 and Takahama Unit 1 completed (Completed for plants other than Ohi Units 1 and 2 in June 2011) fiscal 2012 and 2013) Raise oil-retaining walls for 77kV switches and emergency transformers April 2011) (Planned completion in approximately one year at Ohi Units 1 and 2) Change route of power cables in buildings to avoid flooding Measures for severe accident management (Planned completion in approximately three years at Mihama, Takahama and Ohi Plants) Maintain working environment in central control room Establish administrative Establish procedures to maintain operations by supplying power from Ensure cooling capability for reactor cores buildings with seismic backup power generators already deployed to air conditioning systems isolation that ventilate the central control room and use filters to remove radioactive Containment vessel Establish administrative Deploy fire pumps, fire hoses and other equipment to supply materials in the air in order to prevent work in the central control room buildings with seismic rom being impeded even if all power is lost (Completed in June 2011 seawater, etc. to condensate storage tanks (Completed April 20 isolation and measures for tsunamis, earthquakes and radiation (Considered on Upgrade pipes between tanks Install protective barriers around medium/long-term basis) (Implementation planned for fiscal tanks (Implementation planned for Main Ste 2011 and fiscal 2012) se into air fiscal 2012) X Deploy additional fire pumps and hoses efueling water storage tank Deploy additional fire pumps and hoses to supply water to steam generators in order to conduct further cooling after reactors are cooled by auxiliary turbine-driven feed water pumps (Completed June 2011) sure safetv iniection pu Spent fuel Install pr ter pumps Build access roads to plant (conducted on Raise height of existing breakv (or establish seawalls on land) medium/long-term basis) Renderina Electricity Institute operator support systems Install operator support systems that provide necessary information on plant conditions and operations during accidents (To be implemented based on central control panel replacement schedule at Mihama Unit 3. Takahama Units 1 and 2, and Ohi Units 1 and 2) Implement measures to maintain the functioning of important safety facilities Install protective barriers for seawater Ensure cooling capability for spent fuel pools Install sealing on -Secure emergency power supplies pumps (Implementation planned for doors (Completed May 2011) fiscal 2011) Secure power supplies Deplov backup emergency Deploy fire pumps and fire hoses to supply necessary for plant power generators (mobile, seawater, etc. to spent fuel pools (Completed April 2011) monitorina, etc. air-cooled diesel generators) Keep backup seawater pump motors Replace with watertight (Completed April 2011) Installation scheduled for on hand (Planned for fiscal 2011) doors (Implementation first half of FY 2011) planned for first half of Conduct special inspections during refueling outages . fiscal 2012) Inspect cooling pumps Raise existing breakwaters or build new (Completed at Mihama Unit 1 and Takahama Unit 1 in April 2011) seawalls on land (Implementation Deploy mobile engine pumps planned for fiscal 2011 at Mihama and for supplying seawater Install pipes to inject fire-control water Takahama Power Station and for fiscal instead of seawater pumps (Implementation planned for fiscal 2011) 2013 at Ohi Power Station) (Completed June 2011 Raise earthquake resistance (Implementation planned for 2011 and 2012) Secure power supplies Install additional emergency Switch power supply for water level meters and temperature necessary for operating auxiliary Install large-capacity pumps to backup seawater pumps power generators (Considered meters from regular to emergency electric-driven feed water pumps Install large-capacity pumps to conduct further cooling after reactor cores are cooled by on medium/long-term basis) Install water level monitoring cameras auxiliary turbine-driven feed water pumps (Installation planned by December 31, 2011) (Completed April 2011) (To be implemented in phases starting with plants undergoing refueling outage)



Providing services as a unified group

Your trusted partner in energy and living

As a comprehensive provider of electricity and other forms of energy, as well as a variety of information and telecommunications (IT) and lineup of business providing comfort and safety services in daily life, the Kansai Electric Power Group interacts with the people of the Kansai region in countless ways. These interactions enable us to grow closer to our customers and further to integrate our electricity and other Group operations as a total solution. By meeting and exceeding our customer needs, our aim is to become our customers' trusted partner in energy and living, for tomorrow's low-carbon society.

How the Kansai Electric Power Group aims to grow as an integrated corporate group



Providing total solutions by combining excellent Group services, with a focus on electricity

Toward improvement of customer service

Improving services by listening to customer opinions

Kansai Electric Power ascertains its customers' needs from the feedback it receives through its call centers and Electric Life Consultation Desks, which serve as direct points of contact with customers.

Thus far, we have launched an inquiry service to notify customers of the amount of electricity they use (see page 24), and made several improvements, including reform of records provided to customers.

Implementing customer satisfaction surveys

We are continuously conducting customer satisfaction surveys among those who apply for connection to our electric power services. We ask respondents to give their impressions of our staff and to evaluate their service experience. In this way we are able to objectively assess the service levels of our sales offices, verify the results of efforts to improve our work, and discover areas for further improvement. These also provide useful information for setting targets and improvement actions for subsequent business periods as we strive to further improve customer satisfaction levels.

Customer service improvement philosophy



Providing lifestyle solutions

Promoting totally electric homes with energy-saving **EcoCute water heaters**

Kansai Electric Power is helping its customers and society at large save energy, cut costs, and reduce CO2 by promoting totally electric homes that are safe, convenient, and economical through the use of energy-saving EcoCute water heaters. By offering a tariff option (HAPI-e-Time) that offers differential pricing for daytime and nighttime use, we are promoting the load leveling of electricity use by encouraging customers to shift some of their electricity consumption from weekday daytime hours to other times.

What is the energy-saving EcoCute?

The EcoCute is an energy-saving water heater that uses airsource heat, a renewable energy, along with heat pump technology, which produces more than three times the amount of thermal energy than is consumed in electricity.

Heat pump technology is a technology for producing heat energy by pumping heat from the air. It is a highly practical technology that is widely used in heating and cooling applications, such as water heaters and air conditioners, as well as in refrigerators and other devices.



Equalizing the load with HAPI-e-Time (time of use lighting service)

Customers who use energy-saving EcoCute water heaters can enroll in HAPI-e-Time, a tariff option that sets relatively higher regular prices* for weekday daytime hours (10:00 am to 5:00 pm) and offers discounted prices for use at other hours. HAPI-e-Time promotes load equalization by running EcoCute heaters primary during nighttime hours when discount pricing is applied, and also by encouraging customers to shift their hours of use of other electrical appliances from the high-consumption weekday daytime hours to other hours.

* The regular price refers to the unit price for second-tier usage under Meter-Rate Lighting A: ¥24.21

HAPI-e-Time

Web HAPI-e-time http://www1.kepco.co.jp/ryoukin/hapie.html

Promoting widespread adoption of energy-saving **EcoCute systems**

Inquiries regarding EcoCute systems can be addressed over the phone by our Electric Life Consultation Desks or through an in-person visit by one of our company representatives. To help our customers achieve real energy savings, cost savings, and CO₂ reductions, we offer a consulting service tailored to the needs and current equipment of our customers regarding topics ranging from tariff options to the efficient use of other electrical appliances. We are also developing a variety of activities to help ensure that the energy-saving aspects of the EcoCute are well understood by our external partners, including homebuilders, developers, and local retailers so that they can recommend this

system to their customers.

Thanks to these and other efforts, the number of households now using energy-saving EcoCute water heaters has grown to about 500,000 in the 10 years since their release until March 2011. Kansai Electric Power will continue working hard to promote the widespread use of EcoCute systems by communicating their advantages to customers.



Examples of total solutions based on the totally electric home

The Kansai Electric Power Group delivers total solutions, combining electricity and other services that only the Group can provide.

In information and telecommunications services, K-Opticom Corp. is offering three services under its "eo" brand: optical fiber Internet access, optical fiber telephone, and optical fiber TV. They are also striving to bolster their services by developing "eo Mobile," a mobile broadband service.

By combining the totally electric home concept, which offers an advanced model of living appropriate for a low-carbon society, with home security, nursing care, health management support and other services related to better modern living, the Kansai Electric Power Group is responding to the diverse needs of its customers, and helping them achieve safety and security as well as comfort and convenience in their everyday lives.

Total solutions focused on totally electric homes



Providing solutions in the corporate field

To meet the diverse needs of its customers, the Kansai Electric Power Group leverages its full strength in offering solutions. Specifically, by consulting with customers about their needs to save energy, cut costs, and reduce CO₂, we offer optimal energy systems that incorporate high-efficiency equipment, such as heat pumps.

Central to these activities are our air conditioning solutions, which are already highly regarded by many of our customers, and our solutions for supplying hot water to hospitals and welfare facilities, as well as sporting facilities. We are also promoting initiatives that can meet the diverse needs of our industrial customers by not only providing utility equipment, but also by offering energy solutions for entire plants, including their production processes. Going forward, the Kansai Electric Power Group will work as an integrated unit to provide optimal solutions so that we can offer benefits to customers in various fields.

Striving to be a best partner in energy

As part of our solutions activities, Kansai Electric Power partners with other Group companies such as Kanden Energy Solution to actively offer utility services ranging from energy equipment design and installation to ownership, operation, maintenance, and management. We also offer energy management services, through which we propose optimal ways to use energy.

Development of energy solutions



•Surveys of energy-use status and proposals for improvement

 Energy management support services, such as help with preparing regular reports under the Energy Conservation Act, medium to long-term plans, and management standards

- •Alternative to full-time electrical engineer
- Management of facilities in general

Progressive Approach to Environmental Problems

Kansai Electric Power Group Environmental Action Plan

The Kansai Electric Power Group is actively promoting initiatives aimed at achieving a sustainable low-carbon society based on the Kansai Electric Power Group Environmental Action Plan

By continuing Group-wide efforts toward environmental preservation in accordance with the three key pillars of this Environmental Action Plan, the Group is contributing to the creation of a sustainable society.



Status overview of our business activities and environmental load (fiscal 2010)



* Composite index =

Note 1: This table contains actual figures for the Kansai Electric Power Co., Inc. only (on a non-consolidated basis). Note 2: Totals may not tally due to rounding.

Coal

Heavy oil

Crude oil

Liquefied natural q

Wood pellets

LNG

Other

Fuels for nuclear

Industrial water

Clean water

River water,

Seawater

(desalinated)

Limestone

Ammonia

Office electricity

Office water

Copy paper

Gasoline

Diesel oil

groundwater, etc

power generation

č

		1	•		
F	Released into) a	tmosphere		
СО	2 (carbon dioxide)*1		7.03 million t-CO2 2.50 million t-CO2) ^{*2}		
N20	O (nitrous oxide)*3) thousand t-CO2		
SFe	s (sulfur hexafluoride)*3	55	5 thousand t-CO2		
SO	× (sulfur oxides)		2,224 t		
NO	× (nitrogen oxides)		5,356 t		
p *2 A ir	cludes CO2 origina urchased from oth mount of emission nto account. O2 conversion	er e	electric companies.		
F	Released into) N	vater areas		
CO	D emissions		21 t		
Tota	al effluents	6	6.54 million m ³		
	Radioact	ive	e waste		
Amount of low-level radioactive waste generated* 7,675 drums (200 L drums) * Net generation (generated amount – reduced amount)					
1101	Industrial				
	al amount of		665 thousand t		
<u>em</u> തട	Recycling				
	Recycling Reduction in intermediate treatme		661 thousand t		
Proce			2 thousand t		
- 0	Final disposal Recycling rate	99.7%			
	, ,				
	CO ₂ emissio from office	a	ctivities		
	al amount of ssions		39.4 thousand t-CO2		
down	Office electricity (0.281 kg-CO ₂ /kWh)) 29.9 thousand t-CO:			
s break	Office water (0.36 kg-CO ₂ /m ³)		200 t-CO2		
Vehicle fuels (Gasoline: 2.32 kg-CO ₂ /L) (Diesel oil: 2.58 kg-CO ₂ /L)					
emi	ures in parentheses ssions factor. Amo stricity use takes CO	unt	dicate the CO2 shown for office credits into account.		
	Custo	m	ners		
	Amount of electric power				

sold

151.1 TWh

al efficiency 1990 100	$\boxed{\frac{\text{Amount of electric power sold}}{\text{Composite index}^*} \cdots 216}$	Amount of electric power sold Amount of CO ₂ emissions		
Environmental load caused by				

* In calculations starting in fiscal 2007, we are using the LIME2 integrated coefficient developed by the Research Center for Life Cvcle Assessment * The amount of CO2 emissions shown here takes CO2 credits into account

Eco Action (targets and results)

(Self-evaluation) ○: Target achieved △: Target mostly achieved X: Target not yet achieved —: Unable to evaluate (e.g. because target is for a date several years in the future)

		FY 2010 targets and results	FY 2010 targets and results			Targets		
Item	FY 2009 results		Ť	0 // 1 //	EV 0011	Ŭ	514 004 0	P
		Targets	Results	Self-evaluation	FY 2011	FY 2012	FY 2013	
atives toward the realization of a low	r-carbon society							
CO ₂ emissions reduction per unit	0.265 kg-CO ₂ /kWh ^{*1} <before co<sub="" taking="">2 credits into account: 0.294 kg-CO₂/kWh></before>	Approx. 0.282 kg-CO ₂ /kWh ^{*1}	0.281 kg-CO₂/kWh ^{*1} <before 0.311="" account:="" co₂="" credits="" into="" kg-co₂="" kwh="" taking=""></before>		Approx. 0.28	32 kg-CO2/kWh*1		F
of electric power used (sold)	Ref: Average for FY 2008-2009 ⁺² 0.282kg-CO ₂ /kWh (after taking CO ₂ credits into account)	(5-year average for FY 2008–FY 2012)	Ref: Average for FY 2008-2010' ² 0.282kg-CO ₂ /kWh (after taking CO ₂ credits into account)		(5-year average f	or FY 2008–FY 2012)	Targets for next fiscal year currently under investigation	
Promoting "safety first" operations at nuclear power plants	77.0% facility utilization rate	Operate nuclear power plants with safety assurance measures to prevent a recurrence of an incident like the Mihama Nuclear Power Station Unit 3 accident	78.2% facility utilization rate	-	accident, and continue operation	nt measures in response to the Fuku ting nuclear power plants by making f an incident like the accident at Miha	continuous improvements aimed at	
Maintaining and improving the thermal efficiency of thermal power plants lower heating value base)	44.1%	45.0% or more	44.6%			45.0% or more		
Development and dissemination	Achieve amount required by the RPS Law (1,490 GWh)	Achieve amount required by the RPS Law	Achieve amount required by the RPS Law (1,780 GWh)	0	Promoto the develo	oment and dissemination	of ronowable operates*3	
f renewable energies	Power output from subsidized facilities: 0.3 MW (Number of facilities: 31)	Promote the Kansai Green Electricity Fund	Ref: Power output from subsidized facilities: 0.3 MW (Number of facilities: 31)	-			or renewable energies	
Reducing customer CO ₂ emissions through the dissemination and expansion of electric vater heaters such as EcoCute ⁻⁴		Reduce customer CO ₂ emissions through the further dissemination and expansion of EcoCute	68 thousand t-CO ² (68 thousand t-CO ²)	-	Reduce customer	CO ₂ emissions through th and expansion of EcoCu		
imiting SF6 emissions (calendar year basis) (gas covery rate at inspection/removal of equipment		97% (at time of inspection) 99% (at time of removal)	98.8% (at time of inspection) 99.2% (at time of removal)	0		97% (at time of inspection 99% (at time of removal		
atio of low-pollution vehicles to all ehicles held	79.1%	80.0%	82.9%	0	83%	84%	85%	
lumber of next-generation electric vehicles nd plug-in hybrid vehicles introduced	111	Approx. 200 vehicles by FY 2011 Approx. 1,500 vehicles by FY 2020	168	-		oprox. 200 vehicles by FY oprox. 1,500 vehicles by F		
atives toward the achievement of a so	ound material-cycle society							
mproving the recycling rate of industrial vastes	98.7%	More than 99.5% (by FY 2012)	99.7%	0		Nore than 99.5% (by FY 2 to continue in FY 2013 ar		Ι
Proper processing of PCB wastes ^{'5}	Processed volume: Low-concentration PCB: 57 thousand kL (cumulative total) High-concentration PCB: 1,403 units (cumulative total)	Process all PCBs by the legal deadline (by 2016)	Processed volume: Low-concentration PCB: 62 thousand kL (cumulative total) High-concentration PCB: 1,777 units (cumulative total)	_	Process a	II PCBs by the legal dead	line (by 2016)	
atives toward a trusted, environmenta	Illy advanced corporation							
Further introduction of systems in compliance with ISO or other certifications (compliant ocations at fiscal year-end)	13 locations	Support of and expansion to appropriate number of locations	13 locations	0	Supp	ort of and expansion to ap number of locations	propriate	
Maintaining sulfur oxide (SOx) and SOx nitrogen oxide NOx) emission levels	Emissions per basic unit Overall 0.012 g/kWh Thermal 0.035 g/kWh	Maintain current status Ref: 5-year averages for FY 2005–FY 2009 0.02 g/kWh (overall) 0.06 g/kWh (thermal)	Emissions per basic unit Overall 0.017 g/kWh Thermal 0.045 g/kWh	0		Maintain current status year averages for FY 2006 kWh (overall) 0.06 g/kW	6-FY 2010	
roportional to the olume of electric NOx ower generated	Emissions per basic unit Overall 0.035 g/kWh Thermal 0.100 g/kWh	Maintain current status Ref: 5-year averages for FY 2005–FY 2009 0.04 g/kWh (overall) 0.11 g/kWh (thermal)	Emissions per basic unit Overall 0.041 g/kWh Thermal 0.108 g/kWh	0	Ref: 5- 0.04 g/	Maintain current status year averages for FY 2006 kWh (overall) 0.11 g/kW	6-FY 2010	
leasured dosages of radioactive gaseous vaste in public areas around nuclear ower plants	Less than 0.001 millisieverts/year	Less than 0.001 millisieverts/year	Less than 0.001 millisieverts/year	0	L	ess than 0.001 millisieverts	/year	
Promotion of environmental household ccount books	8,600 people	Encourage use of Kansai Electric Power environmental household account books both inside and outside the company	Ref: 11,113 people	-		e use of Kansai Electric Pount books both inside and o		T
					**	1: Takes CO2 credits into account a	s provided for under the Kvoto Mea	char
Item Reducing office ele	ectricity consumption'6 Reducing office water	consumption ⁶ Improving fuel efficiency of company vehicles ⁷	Reducing copy paper consumption Improving the gre				ons factor before taking CO ₂ credits	

SS	Item	Reducing office electricity consumption ^{*6}	Reducing office water consumption ⁶	Improving fuel efficiency of company vehicles'7	Reducing copy paper consumption	Improving the green purchasing rate for office suppli
y and resource conservation activiti	Progress since fiscal 2000 (excerpted)	Volume of office electricity consumption (GWh) 150 - 119 100 - 106 50 - 0 2000 2009 2010 2011 (FY)	Volume of office water consumption (Thousand m®) 1,200	 Fuel efficiency of company vehicles (km/L) 10.0 - 9.84 9.9.4 9.8- 9.6 - 9.47 9.4 - 9.2 - 9.14 9.0 2000 2009 2010 2011 (FY) 	Volume of copy paper consumption (t) 1,200 - 1,001 1,064 1,082 Promote maximum 800 - 400 - 0 - 2000 (C 2009 2010 2011 (FY)	-• Green purchasing rate for office supplies (%) 100 - 99 97 97 approx. 100% 80 - About the same as previous year 40 - 20 - 0 - 2003 (2009 2010 2011 (FY)
energ	Targets for fiscal 2010 to 2013	1% or more reduction compared to the prior fiscal year	1% or more reduction compared to the prior fiscal year	1% or more improvement compared to the prior fiscal year	Promote maximum possible reduction	Maintain current status (approx. 100%)
flice	Self-evaluation	×	0	0	×	0
g	FY 2010 CO ₂ conversion	0 CO ₂ conversion 29.9 thousand t-CO ₂ 0.2 thousand t-CO ₂		9.3 thousand t-CO2		

2: Our CO2 credit emissions lack larget. 0:22 KW CO22 KW [C+year average for FT 2008-2012). To communicate progress toward this goal, this year we began publishing the average for multiple past fiscal years from FY 2008 to the current fiscal year (after accounting for CO2 credits).
 *3: We revised the target to develop initiatives aimed at promoting the widespread use

*3: We revised the target to develop initiatives aimed at promoting the widespread use of renewable energies.
*4: With regard to reducing customer CO₂ emissions through the expanded use of electric water heaters like the EcoCute, the load model and other factors used as the basis for the preliminary calculations have been revised in conjunction with revisions to the Energy Conservation Act. (For details regarding the load model involved in these calculations, see our 2011 Environmental Report at http://www1.kepco.co.jp/kankyou/csr_sitemap/index.html) After recalculating the FY 2009 figures using this load model and other factors, we revised the amount from 49,000 t-CO₂ to 62,000 t-CO₂.
For the actual figures, we used the CO₂ emissions factor after accounting for the CO₂ credits for that year. Figures in parentheses () are Kansai Electric Power's CO₂ emissions factor targets (5-year average for FY 2008-2012: 0.282 kg-CO₂/kWh).
*5: The high-concentration PCB waste processing figures indicate the amount processed based on the actual amounts shipped into the processing facilities of the Japan Environmental Safety Corporation.
*6: We revised the scope of our calculations of office electricity consumption and office

6: We revised the scope of our calculations of office electricity consumption and office water consumption. In conjunction with this, we revised figures from FY 2009 to ensure that those figures would be suitable for comparison.
 7: We revised the methods of calculating fuel efficiency (to exclude special vehicles from the calculations).

Do>> Striving to achieve a low-carbon society Becoming a main player in the drive for a low-carbon society



Accelerate conversion to low-carbon electricity

We are trying to improve the low-carbon aspects of the electricity we deliver to customers through such efforts as ensuring safety and stability in the operation of nuclear power, improving the efficiency of thermal power, maintaining and expanding hydropower capacity, and developing and introducing renewable energies.

Setting goals aimed at reducing our CO2 emissions factor

Kansai Electric Power has been promoting comprehensive strategies with the goal of lowering the amount of CO₂ emissions proportional to the amount of electric power consumed (sold), known as the CO₂ emissions factor. As a result, our CO₂ emissions factor has reached the highest standards in the industry. However, with the goal of establishing an even lower-carbon power supply system, we are striving to reduce the CO₂ emissions factor to a five-year average of 0.282 kg-CO₂/kWh over the first commitment period of the Kyoto Protocol (FY 2008–2012), and are promoting various efforts to achieve this goal.

Results of CO₂ emissions factor reductions

Our CO₂ emissions factor for FY 2010 was 0.281 kg-CO₂/kWh* as a result of efforts aimed at achieving our own targets.

* This is a provisional value. The government will officially announce actual values, based on the Law Concerning the Promotion of the Measures to Cope with Global Warming, etc.



Safe and stable operation of nuclear power plants to achieve a low-carbon society

Because it does not emit CO₂ during generation, nuclear power generation is a valuable means of reducing global warming. Moreover, the uranium used in nuclear power plants as fuel can be imported from a number of politically stable countries, assuring stability of supply and economic viability.

Kansai Electric Power is implementing policies to improve safety in response to the accident that occurred at TEPCO's Fukushima Daiichi Nuclear Power Plant, and is doing everything possible to ensure the safe and stable operation of its nuclear power plants.

Stable operation and improved capability of hydroelectric power generation

Hydroelectric power generation is a purely domestic Japanese energy source, excellent in terms of both stability of supply and economic efficiency. Kansai Electric Power will continue stable operation of hydroelectric power generation facilities by carrying out appropriate maintenance, improve output at our existing facilities, and promote the switch over to an adjustable speed pumped storage system and development of small- and mid-scale hydroelectric power generation, with the goals of flexible response to supply and demand fluctuations and further mitigation of the environmental load.

Accelerate conversion to low-carbon electricity through equipment upgrades

Kansai Electric Power will be systematically implementing equipment upgrades, such as waterwheel and generator replacement, at about 20 hydropower plants including the Kurobegawa No. 2 Power Station, over the next 10 years. When performing these equipment upgrades, we will use improved-precision degradation diagnostic technologies and will appropriately determine the best upgrade time frames. By using computerized analytic technologies, we will be able to optimize the shape of the waterwheel runners and other elements to suit the location of the power plants. This will allow us to make maximum use of existing equipment, to replace older equipment with new equipment that offers better power generation efficiency, and to increase our power output.

By promoting these upgrades over the next 10 years, we expect to be able to increase power output by about 100 GWh/year, allowing us to reduce CO₂ emissions by 27,000 t-CO₂/year.

Hydropower plant using river maintenance flow discharge (Okuwa-Nojiri Power Station)

At the Yomikaki Dam owned by Kansai Electric Power (Okuwamura, Kiso-gun, Nagano Prefecture), the river maintenance flow has been constantly discharged from the dam pondage to maintain the river environments, that is, to preserve the scenery of the areas downstream of the dam. We planned to build a power plant (maximum output of 490 kW) using this river maintenance flow

Overview of the Okuwa-Nojiri Power Station



Yomikaki Dam Height: 32.10 m Catchment area: 1,342 km² Existing Yomikaki

Power Station Max. output: 117,100 kW Max. plant discharge: 118.91 m³/s

Okuwa-Nojiri Power Station Max. output: 490 kW Max. plant discharge: 2.82 m³/s Effective head: 22.50 m discharge and the unused elevation difference. We broke ground on the plant in November 2010 and began operations in June 2011. This is expected to reduce CO₂ emissions by 1,300 tons/year.

Maintaining and improving the thermal efficiency of thermal power plants

Kansai Electric Power is pursuing ongoing measures in both facilities and operations in order to maintain and improve thermal efficiency, to save fossil fuels and as a result, reduce CO₂ emissions. In September 2010, the facilities renewal work to make the Sakaiko Power Station a 1500°C-class combined-cycle power plant was completed. This improved the thermal efficiency from 41% to 58%, thus making it possible to achieve reductions in our CO₂ emissions factor. We are also working to upgrade the Himeji No. 2 Power Station to a combined-cycle power plant with cutting edge 1600°C-class gas turbines. This will improve the thermal efficiency from approx. 42% to 60%, among the most efficient in the world, thus enabling significant reductions in our CO₂ emission factor.

Actively introducing renewable energies

Promotion of independent development of renewable energy

In September 2011, Kansai Electric Power started commercial operation of the Sakai Solar Power Station in the Sakai City waterfront area as its first mega solar project, having completed the construction work which began in October 2009.

Its peak power output of 10MW makes it one of the largest solar power facilities in Japan and is expected to reduce CO₂ emissions by about 4,000 t-CO₂/year.

Since power output from a solar power system varies considerably depending on weather conditions, such as the amount of solar radiation, there are concerns that some issues such as large fluctuations of frequency resulting from the widespread adoption of solar power within the grid may have a severe impact on the quality



Sakai Solar Power Station

of electricity supply. For this reason, Kansai Electric Power is currently engaged in collecting data on solar radiation, output, and voltage, etc. and verifying various issues in providing a stable electricity supply with a power grid system that includes solar power stations.

Purchasing power from power generation equipment that runs on renewable energies

We are also working on the dissemination of renewable energies. Of the power that has been created by the solar power generating equipment installed by our customers, the surplus power (power generated by solar panels but not used at their place of installation) is being purchased by Kansai Electric Power under the government's New Purchase System for Photovoltaic Electricity. We are also actively purchasing renewable energies, such as wind and biomass power, which are governed by the Renewables Portfolio Standard (RPS) Act.

Use of biomass fuels

The coal-fired Maizuru Power Station has been generating power using wood pellets, a biomass fuel (mixed fuel combustion with coal) since 2008. This is expected to reduce coal consumption and cut CO₂ emissions by 92,000 tons/year.

Contribute to energy conservation, cost reductions and CO₂ reductions by customers and society

Kansai Electric Power offers customers a wide range of energy-saving proposals to encourage efficient energy use throughout society, and also strives to cut energy use and CO₂ emissions at its bases of operation.

Providing optimum solutions for reduced energy consumption, costs and CO₂ emissions

Kansai Electric Power is working hard to develop activities that benefit customers by paying close attention to customer feedback and social input regarding sales activities, and by addressing the needs to save energy, cut costs, and reduce CO₂ through meticulous consultations.

Among our residential customers, we are proposing the concept of totally electric homes where people can enjoy peace of mind and comfort, by focusing mainly on EcoCute water heaters, which help save energy, cut costs, and reduce CO₂.

For our business customers, we are bolstering our efforts to meet their specific needs with appropriate products and services, and are pouring a great deal of effort into proposing heat pumps and other systems that improve efficiency.

Combining totally electric homes with solar power generation

The combination of totally electric homes incorporating EcoCute, which uses heat extracted from air warmed by the sun, and solar power, is proposed as an optimum solution to the issue of CO₂ emissions. Both systems employ renewable energy, and the combination of them enables even greater reductions in CO₂ emissions.

Providing a variety of information about energy conservation

To help our residential customers use energy more efficiently, we are offering access to different types of information regarding energy conservation, recommending our electricity use notification service, which lets customers know how much energy they use each month, and promoting the use of the environmental household account book "Eco e-Life Check," a tool that visibly renders the amount of CO₂ emissions for consumers. For business customers, we offer various services based on their specific equipment and usage, including energy saving diagnostic services and energy management support.

Providing information about saving energy through websites and pamphlets

Kansai Electric Power distributes pamphlets that explain how customers can use energy wisely, and the Company's website also includes a section that introduces tips and fun ways to help customers conserve energy more efficiently.

Web The Ekoda family's energy-conservation lifestyle http://www.kepco.co.jp/sho-ene/

Domestic carbon credit creation initiative

Kansai Electric Power participates in efforts to reduce CO₂ emissions in accordance with the Japanese government's aiming to offset CO₂ emissions by certified carbon credit scheme generated from domestic emission reduction projects.

We had participated in 12 joint projects registered by the Domestic Credit Certification Committee as of the end of July 2011. These projects are expected to lead to an estimated 5,000-ton annual reduction in CO2



Ohno Memorial Hospital

emissions. Domestic credits have already been transferred from 10 of these 12 projects, including the Project to Upgrade the Air Conditioning Equipment, Heat Pump, and High Efficiency Lighting Fixtures at Ohno Memorial Hospital (Minami Horie, Nishi-ku, Osaka).

Energy conservation and CO₂ emissions reduction at Company bases of operation

To reduce energy consumption and greenhouse gas emissions at its bases of operation, Kansai Electric Power is promoting activities to save energy and reduce CO₂ based on an environmental management promotion system.

Energy management at bases of operation

In 2007, we introduced the "Energy Management" program at some of our bases of operation whereby we measure daily electric power consumption in detail, periodically review and analyze data, and continuously take effective energy-saving measures based on that data at our business locations. In FY 2010, we reduced total energy consumption by 3% over the previous year at 18 locations where this system has been introduced.

Even at bases of operation where energy measurement has not been implemented, we have compiled good practices derived from these efforts into a collection of energy-saving case studies and have developed techniques for conserving energy.

We will continue to promote the "Energy Management" program, to accumulate further knowledge and experience related to energy conservation, and to use our technical know-how effectively. We will apply this program to buildings of different sizes and usages, and will promote efforts to conserve energy in all Company locations.

Active adoption of electric and plug-in hybrid vehicles

Electric vehicles emit no CO₂, NO_x (nitrogen oxides), or SO_x (sulfur oxides) while on the road. Plug-in hybrid vehicles also emit less of these substances than gasoline-fueled vehicles, such that the environmental impact is reduced when either type of vehicle is used.

To reduce the CO₂ emissions of our company vehicles, Kansai Electric Power has set a goal of introducing a total of 1,500 electric and plug-in hybrid vehicles by FY 2020. The current stage of the plan involves adding about 200 such vehicles by FY 2011.

In FY 2010, we introduced 57 electric vehicles at our sales offices and operation and maintenance offices, and have promoted their use in everyday operations. (As of the end of FY 2010, we had introduced a total of 143 electric vehicles and 25 plug-in hybrids, for a total of 168 vehicles since FY 2009.)

Introduction of electric and plug-in hybrid vehicles

FY 2009	FY 2010	Total
86	57	143
25	0	25
111	57	168
	86 25	86 57 25 0

(unit: vehicles)

Technological developments for constructing the Kanden Smart Grid

The Kansai Electric Power Group aims to contribute to the achievement of a low-carbon society and better usability for customers through the construction of a smart grid (next-generation electricity transmission network).

What is the "Kansai Electric Power Smart Grid"?

The concept of the smart grid is gaining widespread acceptance. The Kansai Electric Power Group has positioned the smart grid as a key to achieving an efficient, high quality, reliable electricity transmission system, employing advanced information, communications, and storage battery technologies to achieve a low-carbon society and a better energy environment for customers without sacrificing the stability of the basic power grid.

A stable supply of electricity with low CO₂ emissions

In the future, should renewable energy sources with unstable output, such as solar power generation, supply power in a largescale or centralized fashion, there are concerns that it could adversely affect the stability of the electric power grid (in terms of electricity quality factors such as voltage and frequency). In order to avert such a situation, Kansai Electric Power intends to pursue the construction of the Kanden Smart Grid, including maintenance and renewal of thermal and pumped-storage hydroelectric power generation and distribution facilities fulfilling the function of supply control, to deliver stable electricity with lower CO₂ emissions.

To do this, we are promoting the development of system operation and control technologies, and research on power supply control systems. (See p. 27)

Usability improvements for customers

In order to provide improved usability and support energy-saving for customers, Kansai Electric Power is making efforts to introduce new measurement systems and visualize energy consumption patterns, while also considering other potential services.

Construct the Kanden Smart Grid



Support for visualization of energy consumption patterns

In order to facilitate reductions in energy consumption, costs, and CO₂ emissions resulting from customers' electricity use, Kansai Electric Power offers a service to inform customers of how much energy they use each month and over the past 24 months, as well as the CO₂ emissions resulting from this use, on our website.

When this service is used, electricity consumption and expenses are automatically transmitted to the environmental household account book "Eco e-Life Check."

(See p. 31 for details on the environmental household account book "Eco e-Life Check.")

Web Service informing customers of electricity use http://www.kepco.co.jp/service/miruden/

Initiatives toward a New Metering System

In recent years, "smart meter" electric power meters have been gaining increased attention. Kansai Electric Power has been conducting R&D on a "New Metering System" since 1999, before the term "smart meter" had even been developed.

This system, making use of next-generation meters employing communications technology, optical fiber networks, and other such technologies is intended to provide customers with better service and boost the efficiency of business operations. With its introduction, customers' electricity use is measured in 30-minute units, supporting effective equipment configurations tailored to electricity use patterns and more precise energy consulting.

Activities abroad

Making use of the technological capabilities, knowledge and expertise that we have gained through years of operation as an electrical power supplier, the Kansai Electric Power Group is undertaking a wide range of activities abroad to contribute to the mitigation of global warming on a global scale.

Overseas projects by the Kansai Electric Power Group



Senoko Power Station Stage II Repowering Project

In 2008, Kansai Electric Power and other companies purchased shares in Senoko Power Limited, Singapore's largest electricity supplier. Currently, work is underway on the conversion of Senoko Power Station's existing oil-fired steam thermal plants, with a total capacity of 750 MW. to combined-cycle natural gas turbines with a total capacity of 860 MW. This project will benefit the environment by expediting efficient energy use and bringing about major reductions in CO₂ emissions. The Company intends to continue contributing to the steady implementation of such repowering projects.

Location	Singapore
Participating corporations	Kansai Electric Power, Marubeni, GDF SUEZ, Kyushu Electric Power, Japan Bank for International Cooperation
Construction period	Dec. 2009-Aug. 2012 (scheduled)





Senoko Power Station

Computer rendering of facility after renewal

Location	Perth, Australia
Participating corporations	Kansai Electric Power, The General Environmental Technos, Oil Mallee Company (CO ₂ Group)
Construction period	Since 2003

Environmental afforestation project in Australia

warming, and improved biodiversity.

tree belt contains as many as 2.5 million trees.

Since 2003, Kansai Electric Power is carrying out a multiple-

benefit environmental forestation project in Australia, aiming for

simultaneous mitigation of soil salination, mitigation of global

approximately 10 meters wide over a combined 900 kilometers in

length, on farm and pasture land leased near Perth in the state of

Western Australia. Covering an area of about 1,000 hectares, the

We have planted belts of mallee eucalyptus trees



Part of the mallee eucalyptus belt

Projects utilizing Kyoto Mechanisms

To contribute to the mitigation of global warming, Kansai Electric Power is promoting initiatives that use the Kvoto Mechanisms, such as the Clean Development Mechanism (CDM), and is participating in various wind power, hydropower, and other projects in countries including China and Vietnam.

CO₂ credits are issued from each project, helping to lower our CO₂ emissions factor.



Shandong Huaneng Shouguang 49.5 MW Wind Farm (China)



Nam Pia Hydropower Plant (Vietnam)

Development of advanced technologies

Utilizing our specialized technological capabilities as an electric power supplier, we are contributing to the achievement of a low-carbon society through the development of advanced technologies, including environmental technologies for CO₂ separation and recovery, and high efficiency electrical devices.

Next-generation power generation technologies and technological developments that contribute to a low-carbon society

Separation and recovery of CO₂ in exhaust gases

Since 1990, Kansai Electric Power has been collaborating with Mitsubishi Heavy Industries, Ltd. on the development of a technology for separating and recovering CO₂ from the exhaust gases produced by thermal power plants using a process of chemical absorption.

In 1994, the Company's continuing research resulted in the successful development of the world's most efficient CO2 absorption solvent, KS-1, a superior replacement for the conventional chemical absorption solvent that had been generally used up to that point, monoethanolamine.

Combining this with other systemic improvements, we were able to reduce the energy needed for CO₂ recovery from the previous 900 kcal/kg-CO2 range to 600 kcal/kg-CO2 or less.

We are currently engaged in developing a new absorption solvent that will reduce CO2 recovery energy to an even lower level than KS-1.

This technology has already been introduced in 10 cases worldwide, primarily for increasing urea production. Since cost reductions can also be expected in the field of chemical engineering and enhanced oil recovery, we are also promoting the dissemination of this technology overseas.

Technology guidance projects in the Pacific Islands

As part of the activities of the Global Sustainable Electricity Partnership (formerly known as e8), we have held local workshops for engineers working for electric power companies in the Pacific Island nations eight times since 2005.

Because the Pacific Island nations primarily generate electricity using diesel, there is a considerable need for technologies that will reduce their environmental impact and fuel costs. Kansai Electric Power has been cooperating in efforts to transfer technologies and train experts in the areas of renewable energies and energy conservation.

In this region, we implemented the Tuvalu Solar Power Generation Project, and are developing global activities aimed at sustainable energy development and the achievement of a lowcarbon society through both infrastructural and technological initiatives.



Participants of a workshop held in Palau



Flue gas decarburization plant

Nipa palms planted in devastated areas

In August 2010, Group company The General Environmental Technos Co., Ltd. and Kyoto University began jointly developing planting technologies for Nipa palms, a type of mangrove tree, and ethanol conversion technologies.

In Thailand, the shrimp culture ponds that were created after the deforestation of natural mangrove forests have been abandoned and left devastated, creating major environmental problems in terms of reducing the CO₂ absorption resources and destroying the local ecosystem.

On the other hand, bioethanol technologies, which have attracted attention as a fossil fuel alternative, are largely comprised of plant-based raw materials like corn and sugar cane. Thus, they present problems in terms of food resource competition and deforestation.

By developing technologies for planting Nipa palms, a type of mangrove whose sap contains a lot of sugar, in devastated areas, and developing technologies for converting that sap into ethanol, it may be possible not only to secure energy resources, but also to provide a resource that absorbs CO₂ from the air and can help restore the local natural environment.



Thai Nipa palms are now a subject of research

Technological developments that help customers save energy, cut costs, and reduce CO₂

Development of high-efficiency electric devices

Thus far, in an effort to conserve energy, we have been further enhancing the efficiency of heat pumps while at the same time devoting energy to expanding the uses of heat pump devices.

For example, in February 2011, we were the first company in the world to successfully commercialize a heat pump that can supply high temperature steam at 120°C. This product, the Steam Grow Heat Pump 120, can supply high temperature steam and achieves a high heat efficiency with a coefficient of performance (COP) of 3.5. This offers a 60% energy saving and a 70% reduction in CO₂ versus conventional gas boilers.

Also, by additionally mounting a steam compressor to a heat pump, we were also able to commercialize the Steam Grow Heat Pump 165, which is able to supply high temperature steam at 165°C.



Technological developments for constructing the Kanden Smart Grid

Development of power system operation and control technology

Solar and other renewable power supply is distinctive in that its output can vary significantly in the short-term due to factors such as weather. The widespread implementation of these methods of power supply thus raises concerns about the potential impacts on voltage and frequency. To ensure that they do not extend to customers, we are taking steps to evaluate the impacts that the introduction of renewable power supply might have on the power grid and to develop new power system operation and control technologies.

Research of electricity supply and demand control systems using storage batteries

Using storage batteries to absorb the fluctuations from solar power output allows a stable grid electricity frequency to be maintained.

Today we are conducting empirical tests on storage batteries at the Ishizugawa Substation, which is linked to the Sakai Solar Power Station.

We are the first in Japan to be conducting research on electricity supply and demand control systems connecting Ni-MH (nickel metal hydride) batteries to an actual power grid.

The results of this research are expected to lead not only to the development of control systems, but also to the assessment of the applicability and longevity of storage batteries, and to investigations of the storage battery capacity that will be necessary when we install the battery systems to our power grid in the future.



A storage battery being used in research

Initiatives toward the achievement of a sound material-cycle society

Efforts to achieve zero emissions

Kansai Electric Power is working to promote the recycling of industrial waste generated by business activities, with the goal of achieving zero emissions, and a target industrial waste recycling rate of 99.5% or higher by fiscal 2012. We are also working to reduce and recycle general waste, such as copy paper, produced by our offices.

Recycling rate of industrial wastes

Kansai Electric Power promotes the 3Rs when it comes to waste generated by all its business activities. As a result of company-wide efforts to shift waste as much as possible from landfills to recycling facilities, we achieved a recycling rate of industrial wastes in FY 2010 of 99.7%, quickly reaching our goal. Going forward, we will continue striving to maintain and improve this recycling rate.

Changes in emissions and recycling rates for industrial wastes



Main applications of recycled industrial waste, etc.



Polychlorinated Biphenyl (PCB) waste processing

Since April 2004, we have been promoting the safe and reliable detoxification processing of our low-concentration PCB wastes, such as utility pole transformer insulation oil and transformer cases, through our Recycling Center for Utility Pole Transformers.

Since October 2006, we have been contracting with the Japan Environmental Safety Corporation to process our high-concentration PCB wastes, such as high-voltage transformers and capacitors. Since identifying the presence of electrical equipment containing trace PCB contamination, we have been conducting R&D on cleaning technologies that can safely decontaminate these devices. In FY 2009, we developed a mobile decontaminate threse devices. In FY 2009, we developed a mobile decontaminate large difficultto-move transformers on site. Today, we are continuing to conduct empirical tests aimed at further rationalizing this system.

PCB waste decontamination status (March 31, 2011)

Low-concentration PCB waste (pole transformers)							
	Insulation oil (10,000 kL)	Transformer cases (10,000 units)					
Volume to be processed	Approx. 10	Approx. 24					
Volume processed so far (cumulative)	6.2	14.8					
High-concentration PCB waste (high voltage transformers and capacitors)							
Volume to be processed	5,534 units						

Green purchasing efforts

Volume processed so far

(cumulative)

Kansai Electric Power is conducting green purchasing activities such that products and services with minimal environmental impact are given priority in purchasing decisions. Specific measures include the creation of a "green procurement manual" and the establishment of company-wide targets. In the area of office supplies (45 items), we have maintained a nearly 100% green purchasing rate for the past number of years. We are also making every effort to use environmentally friendly materials in the green purchasing of electric wires, transformers, and other equipment for electric power facilities.

1.777 units

28

Initiatives toward a trusted, environmentally advanced corporation

Promotion of community environmental protection measures

At Kansai Electric Power, we conduct comprehensive efforts to protect the community environment, including preventing air pollution and water quality contamination. We also take appropriate measures to prevent chemical substances from harming people and the environment.

Environmental protection measures at power plants

At our power plants, we undertake measures based on laws, local regulations, environmental protection agreements and other rules to reduce air pollution, water quality contamination, noise, vibrations and other problems. In addition, we monitor and measure the air and seas around our power plants and carefully evaluate the environmental effects of our operations on the regional environment to ensure that no problems occur.

Air pollution prevention measures (NOx, SOx, soot)

The Company has implemented measures aimed at reducing the volume of SOx (sulfur oxides) emitted by our thermal power plants, such as using fuels with lower sulfur content and installing sulfur scrubbers. To address the issue of NOx (nitrogen oxides), we are taking steps to lower emission levels, including installation of nitrogen scrubbers and improvement of combustion methods. As a result, our SOx and NOx emissions proportional to the volume of electric power generated are ranked among the lowest in the world. In addition, we have installed high-performance electric filters, drastically cutting soot emissions.







Implementing environmental assessments

We are currently upgrading our Himeji No. 2 Power Station to a combined-cycle power generation system. The environmental assessment related to this upgrade was conducted from May 2007 to March 2010. Because the environmental assessment survey revealed the presence of the valuable plant Najas gracillima (slender water nymph) at the planned installation site, we transferred these plants to a manmade pond outside of the construction zone, where we have been monitoring their growth.



Measures to prevent soil and groundwater contamination

The Company has produced our own Handbook on Measures Against Soil Pollution, and complies with all laws and local regulations relevant to soil contamination. Moreover, our power plants have water- and oil-retaining walls installed, preventing soil contamination from chemicals and fuels such as heavy/crude oil in the unlikely event of leakage.

Efforts to handle asbestos problems

Kansai Electric Power has been periodically monitoring and appropriately managing the condition of facilities identified as containing asbestos and taking appropriate action. We continue to undertake appropriate management and execute carefully planned measures to handle asbestos.

Locations (buildings and equipment) where asbestos is used (as of March 31, 2011)

Application		Location
Sprayed materials containing asbestos		Thermal insulations, acoustic materials, fire-resistant materials and soundproof materials of transformers
	Building materials	Flame-retardant boards, roofing and flooring in buildings, etc.
	Asbestos cement tubes	Tubing for buried cables (power transmission and distribution, communication equipment)
Items containing	Thermal insulation	Power generation equipment (thermal, nuclear)
asbestos	Sealants and joint seating	Power generation equipment (thermal, nuclear)
	Shock- absorbent materials	Suspension insulators for power transmission equipment, etc.
	Adhesives	Aerial power transmission cables, hydroelectric dams

Proper handling of chemical substances

In addition to complying with the PRTR Act (Pollutant Release and Transfer Register Act), the Company has prepared a Handbook on PRTR Chemical Management, and we follow its guidelines to ensure the strict management of hazardous chemical substances, and to make efforts to reduce the volume of such substances. In accordance with the PRTR Act, we report to the national government our volumes of chemical emissions and the amounts transported, and regularly make the same information public.

Discharge and transferred chemical substances subject to PRTR Act

	Discharg	e (t/year)	Transferred (t/year)		
Substances	FY 2009	FY 2010	FY 2009	FY 2010	
2-aminoethanol	0	0	10	12	
Asbestos (specified)	0	0	20	11	
Ethylbenzene	10	13	0	0	
Ferric chloride	/	0	/	0	
Xylene	31	31	0	0	
HCFC-225	5.6	14	0	0	
Styrene	5.3	-	0	-	
Toluene	7.4	9.5	0	0	
Hydrazine	<0.1	<0.1	4.0	0.41	
Boron compounds	-	0	-	0	
Methylnaphthalene	/	0	/	0	
Dioxins (specified)	0.50 (mg-TEQ/year)	0.13 (mg-TEQ/year)	8.2 (mg-TEQ/year)	7.0 (mg-TEQ/year)	

* This table presents totals of the values reported based on the Pollutant Release and Transfer Register (PRTR) Act.

* A "0" indicates no discharge, etc.

- * "<0.1" indicates discharge, etc. was less than 0.1 t/year.
- * A "--" indicates that the item is not applicable to any Company facility. * Displayed to two significant digits

Slashes (/) indicate substances that became subject to the PRTR Act in FY 2010, and thus were not totaled in FY 2009.

Preservation of biodiversity

In conducting business, Kansai Electric Power works to address global scale environmental problems with the goal of achieving a low-carbon society, and actively strives to consider issues of biodiversity by conducting environmental assessments and taking measures to preserve the environment based on local characteristics.

At our power plants, we have promoted the creation of natural forests through our ecological revegetation activities. Lush forests have already been developed at many of our bases of operation. creating habitats for birds, insects, and small animals.

We have tried to consider issues of biodiversity by taking measures to protect valuable animal and plant life, such as efforts to protect birds

and other native species of our facilities and their surrounding areas.

We also conduct environmental education and promote partnerships and exchanges with our local communities to help facilitate the preservation of biodiversity



Ischnura senegalensis can be seen at our power plant sites

Creation of natural woodlands (ecological revegetation)

In the expansive green spaces where our power plants are located. we have implemented ecological revegetation in an effort to create natural forests as quickly as possible. This is a method of selecting the saplings of trees and bushes that are suitable for each area, and then doing mixed, dense plantings for the purpose of creating the most natural forest possible in a short amount of time. Kansai Electric Power first introduced this revegetation process at the Tanagawa No. 2 Power Station in 1977, and natural forests have now been created through ecological revegetation activities at many of our power plants.

Because there was no natural forest around Nanko Power Station, which is located within Osaka City, and thus we could not expect to achieve vegetational diversity through the use of nearby resources, we have made efforts to further increase the diversity of the ecological vegetation by adding 1,168 plants of 67 different species.

A natural woodland created by Kansai Electric Power using our ecological revegetation method



* Kansai Electric Power maintains vegetated areas, including natural woodlands, covering 78 million m² (30 times the size of the Expo Park in Osaka)

Measures to protect birds from power lines

In Toyooka City, Hyogo Prefecture, authorities are releasing storks raised in captivity, which have been designated a special national treasure, out into the wild. To ensure that the released storks do not collide with and get injured by its power lines, Kansai Electric Power is increasing the visibility of those lines by adding colored markers to them.

Every year from February to April, the storks build nests on both utility poles and steel towers. Thus, Toyooka City and the Hyogo Prefectural Homeland for the Oriental White Stork are working together to cut the power to existing power lines, without removing the nests or eggs, and to install new power lines at a lower height.

Protecting native species around Kurobe Dam

A trolley bus runs along the Tateyama Kurobe Alpine Route that connects Nagano Prefecture and Toyama Prefecture. Unlike an ordinary bus, this trolley bus runs on an electric motor rather than gasoline, and thus produces no exhaust. Because it is also extremely quiet, it rarely startles animals with its sound.

At Ogizawa Station, which is the entrance to the Nagano Prefecture side, the seeds of plants that do not naturally grow in Kurobe sometimes get brought over on the soles of the shoes of tourists. Thus, seed removal mats have been placed at the station ticket gates to prevent the influx of non-native species. The removed seeds are collected with a vacuum cleaner and incinerated.





Trolley bus





Seed

Promoting environmental communication

Committed to the creation of a better environment and the achievement of a sustainable society, Kansai Electric Power is not only weighing various ecological issues, but also working actively with our customers and the regional community to raise environmental awareness.

Family-oriented activities

Eco e-Life Check: an environmental household account book

The Kansai Electric Power website features the environmental household account book "Eco e-Life Check," a tool that can be used to monitor CO₂ emissions and encourage reductions in household emissions. Users simply input the amount of electricity, gas, and water they use, along with other information, to calculate their CO₂ emissions.

After registering with Eco e-Life Check online, users can view their own CO₂ emission volumes on a personalized web page, and can also use tools for self-evaluation, comparing their results with the average of all members and checking their ranking compared with other users on the site. In addition, for every 10 people who register as members, Kansai Electric Power plants one tree, in the hopes of encouraging as many people as possible to join.

Activities for women

Become a naturalist

"Become a naturalist" is an environmental awareness and education site for women that can be found on our website. It offers people-friendly and environmentally sound lifestyle ideas. The "Natural Café" segment features enjoyable lifestyle ideas from celebrities, and the "Interview with a Naturalist" segment features interviews with people who are engaged in various environmental efforts. In addition, the "Natural Life Essence" page features columns that give tips for environmentally sound living. Its diverse content is updated monthly.



Web Eco e-Life Check: an environmental household account book http://www1.kepco.co.jp/kankyou/co2kakeibo/index.html



Web "Become a naturalist" http://www1.kepco.co.jp/kankyou/natural/index.html

Activities oriented toward the next generation

Green Curtains

Since fiscal 2008, Kansai Electric Power has been conducting a campaign to raise environmental awareness using "Green Curtains," led by staff from Company branches and district offices, at regional elementary schools. A "Green Curtain" is a net, cast across an entire window, on which climbing plants are grown, eventually covering the entire window. The curtain is an effective device for reducing energy consumption: it shades the interior from sunlight and regulates indoor temperatures, while the plants' evaporating effect cools the surrounding area. Company staff members visit elementary schools, explain the purpose and effects of the Green Curtain and how it is created, and assist the children in planting seedlings of their own.



Planting seedlings for a Green Curtain at an elementary school

Kanden e-Kids Club

Each year since 2006, children in the fifth and sixth grades in our service area are invited to participate in a series of ecological programs, known as Kanden e-Kids Club. In FY 2010, a total of 200 children took part in this program, which encourages them to recognize, find out about and take action against global warming and a wide variety of environmental problems.

Kanden e-Kids Club activities continue from the opening ceremony in July to the program's end in March of the following year. The children take part in activities including hands-on nature experiences, visits to facilities, and the Kids' ISO Program, which encourages children to play a leading role in reducing their families' energy consumption.



A hands-on nature experience

Activities for youth

Environmental event cococala+e

Since FY 2008, we have been working with the environmental lifestyle magazine *ecocolo* on jointly organizing cococala+e, an environmental event for people in their 20s and 30s. The purpose is to create a place where young people can become more aware of environmental issues. Comprised primarily of talks on environmental topics and live, relaxing musical performances, the event was held a total of three times in FY 2010; in Osaka, Tokyo, and Kobe. At each event, Kansai Electric Power's younger employees introduced

participants to the company's environmental initiatives.





An eco-talk at Honen-in

Holding a dialogue with stakeholders

In March 2011, we asked nine of our general feedback monitors who are registered with Group company Kanden CS Forum to share their opinions about Kansai Electric Power's environmental communication activities. We received a great deal of valuable feedback regarding our CSR Report, the ease of viewing and understandability of our website, and our communication activities.

Kansai Electric Power will strive to further improve its environmental communication activities based on the feedback provided from customers, and will continue to create opportunities like this where customers can share their opinions.



Participants share ideas in small groups

Promoting environmental management

We have introduced an environmental management system based on the total quality management (TQM) system, and are working to reduce the environmental load of our business activities through continuous improvements.

The Group-wide promotion system

In order to further promote our environmental activities across Group companies, in August 2005 we established the Kansai Electric Power Group Environmental Management Committee, which formulates, checks and reviews Group Eco Actions in conjunction with the Company's CSR Promotion Council's Environmental Board.

In fiscal 2007, we completed maintenance of our risk management system primarily focused on legal risks and covering consolidated subsidiaries, among other areas. We will continue to promote these initiatives and work to reduce both environmental load and environmental risk throughout the Group.

Environmental management promotion system of Kansai Electric Power and its Group companies



* Supervisor for promotion of environmental management activities

Eco Action: Group company concrete action plans

Observance of laws and regulations

In FY 2010, Kansai Electric Power received guidance from Oita Prefecture with regard to stockpiling work associated with the treatment of waste based on the Waste Management and Public Cleaning Act. We took this guidance very seriously, and promptly implemented corrective measures and reported our activities to the government and other relevant authorities.

We will continue working to ensure strict compliance with all laws, ordinances, and environmental protection agreements based on environmental regulations.

A management system conforming to ISO standards

Since fiscal 1997, the Company has utilized an environmental management system compliant with the ISO 14001 international standards for environmental management, primarily at our thermal power plants.

We have also obtained ISO 14001 external certification for the model business locations we set up for each business format, as shown below.

Business locations acquiring ISO 14001 external certification (as of the end of March 2011)

Kansai Electric Power		Group companies			
Business format	Business location name	Company name			
Electric	Himeji No. 1 Power Station (thermal)	ENEGATE Co. Ltd.			
generation	Kainan Power Station (thermal)	THE GENERAL ENVIRONMENTAL TECHNOS CO. LTD.			
	Nanko Power Station (thermal)	Kanden Engineering Corp.			
	Ohi Power Station (nuclear)	KINDEN CORPORATION			
Electric power circulation	Himeji Substation				
	Electric Power Circulation	NEWJEC INC.			
	Division Technical Testing Center	Kanden Plant Corp.			

Disclosure of environmental accounting

To clarify the costs of environmental preservation in our business activities and the effects derived from those activities, we have introduced environmental accounting practices at both the Company and Group levels. The details have been published on our website.

Environmental Report 2011

Web Environmental Report 2011 http://www.kepco.co.jp/kankyou/csr_sitemap/index.html

	Results for FY 2009	Targets and results in FY 2010		Targets			Evaluation	
Item	(for the 45 companies examined)	Targets	Results (for the 45 companies examined)	FY 2011	FY 2012	FY 2013	(Reasons for increase/reduction)	
Reducing office electricity consumption	47.8 GWh	1% or more reduction compared to the previous fiscal year	3.9% increase compared to the previous fiscal year 49.7 GWh		r more red compared revious fis	1	We were unable to reach the goals that were set for the entire Group due to the increased use of air conditioning energy resulting from a heat wave. We will continue developing energy saving activities.	
Reducing office water consumption	273,400 m ³	1% or more reduction compared to the previous fiscal year	5.5% increase compared to the previous fiscal year 288,400 m ³		r more red compared revious fis	1	We were unable to reach the goals that were set for the entire Group due to the increased use of water resulting from a heat wave. We will continue developing water saving activities.	
Improving fuel efficiency of company vehicles	8.96 km/L	1% or more improvement compared to the previous fiscal year	2.3% decline compared to the previous fiscal year 8.76 km/L	COL	nore impro mpared to ious fiscal	the	We were unable to reach the goals that were set for the entire Group, as decreases in vehicle fuel efficiencies were reported by some of the companies we manage. We are promoting the systematic introduction of low-fuel-consumption vehicles and eco-drive methods.	
Reducing copy paper consumption	937.4 t	Reduce as much as possible	5.4% increase compared to the previous fiscal year 988.0 t		duce as m as possible		We were unable to reach the goals that were set for the entire Group, as increases in business activities and personnel were reported by some of the companies we manage. In the future, we will continue to promote efforts to use less paper.	

Note: As the number of applicable companies increased during fiscal 2010 from 44 to 45, this report evaluates the results for 45 Group companies.

Efforts to raise environmental awareness among our business partners

Kansai Electric Power conducts a wide range of activities to encourage its business partners to pursue environmental initiatives. In FY 2010 we identified the types of activities being implemented by our business partners by conducting a survey among those partners and comparing the results against a survey conducted in FY 2008. To help people better understand our Group's initiatives, we sent out materials such as our Group CSR Report.

Implementing employee education and awareness activities

We provide education to employees to ensure that they understand and can put into practice the Kansai Electric Power Group Environmental Action Plan.

Specifically, we provide specialized education for staff in charge of environmental issues at each base of operation, and general education to improve the knowledge of all employees with regard to the environmental initiatives implemented by the Group and throughout society. We also actively promote activities among Group companies to raise awareness of environmental issues.

Acquisition of the EcoLeaf environmental label

Kansai Electric Power's main product, electric power (grid Registered and published data for FY 2009 results electricity), has received the EcoLeaf environmental label.

The EcoLeaf environmental label is an environmental labeling system that is operated by the Japan Environmental Management Association for Industry (JEMAI). This system uses third-party verification of quantitative environmental data for the product lifecycle from the gathering of raw resources to disposal and recycling. In July 2003, Kansai Electric Power became the first business in the energy services field to receive this registered and publicly certified label.

Each year, we update our results with the latest available data, and in the future we will continue disclosing environmental information so as to maintain the trust of our customers.

- CO2 credits are taken into account.
- CO₂ emissions factor as published by the government of Japan
- *3 For details on the certification data, please visit our website at (http://www.kepco.co.jp/kankyou/ecoleaf.html) or the website for the Japan Environmental Management Association for Industry (http://www.jemai.or.jp/english/ecoleaf)

Renewable energies

Renewable energy sources are gifts from nature that can be renewed in a natural environment, such as light and heat from the sun, wind, hydroelectric power, geothermal energy and biomass. Unlike fossil fuels such as oil and coal, there is no risk of drying up, and they are clean energy sources capable of expediting major cuts in CO₂ emissions. Heat from the air, which can be harnessed using heat pump technology, has been recognized as a renewable energy source in the EU and in Japan, and the government is making efforts to encourage its widespread adoption



	Main programs	Description				
Specialized education	Training for newly appointed personnel in charge of environmental issues Training for newly appointed senior staff in charge of environmental issues	Trains personnel to be able to play a central role in performing environmental tasks at their base of operations.				
Speciali	ISO14001 staff training Internal auditor training	Trains personnel to be able to build and implement environmental management systems.				
ducation	Environmental e-learning	A system that allows employees to study on their own using the company's intranet (offered twice a year, often in conjunction with Environment Month in June).				
General education	Self-development training	This training is aimed at encouraging self-development and providing more advanced knowledge. Topics of high interest to employees, such as trends in global warming, are covered.				





EcoCute uses electric power to harness heat from air warmed by the sun, producing thermal energy equivalent to more than three times the electricity consumed.

Proactive Contributions to Development of Local Communities

Contributing as a member of society

Activities that meet local needs at each business location

Community interactions of the Kansai Electric Power Group

As a company with strong ties to the communities in which it operates. Kansai Electric Power is always looking for ways to be of use to its customers and local communities.

The roles the Company is expected to play, and the format that those roles take, differ considerably in rural versus urban areas, and also vary by community.

We strive to pay attention to the various needs of our communities and to participate as a member of the community in addressing those needs to the extent we are able.

Examples of the activities we do with local communities

Electrical equipment inspections at cultural properties

We work with local fire departments to prevent fires at temples, shrines, and other cultural properties by conducting inspections on electrical equipment. We search for electrical leakages and electrical wiring abnormalities and provide instructions to customers regarding the safe use of their electrical equipment. We also perform these kinds of electrical equipment checkups at the homes of elderly people who live by themselves and at social welfare facilities.

Cleanup activities in cooperation with local communities

There is considerable need for community cleanup activities, and our bases of operation are engaged in many such efforts. We conduct a wide range of cleanup activities including those undertaken in cooperation with our local communities. These include cleanups around our bases of operations, tourist sites, beaches, and riverfronts, as well as the cleaning of streetlights, which requires the use of our aerial work trucks. These activities are primarily conducted in June, which has been designated as Environment Month, and November, which is our Customer Appreciation Month.



We help build ice sculptures at the hogawa Electric Power System Center as part of the Nanto Toga soba festival



A Moriguchi Sales Office employee inspects electrical equipment at a shrine



A Sanda Sales Office employee inspects electrical equipment at the home of an elderly person who lives alone



Participating in community cleanup activities at our Shiga Branch



A Nara Sales Office employee cleans a streetlight

Support for Kansai culture, art, and sports

Classical music concert

Kansai Electric Power has held a yearly classical music concert since 1988 as part of its cultural promotion activities in the Kansai region. The FY 2010 Kanden Classical Special "Invitation to the Opera" program featured a performance of Rossini's The Barber of Seville. Around 2,500 people were invited to attend free of charge over two days, allowing them to experience marvelous vocal and theatrical performances. Yearly classical concerts are also held at different branches.



Performance at The Symphony Hall (Osaka)

Sponsorship of college American football in Kansai

Just as it sponsors classical concerts, Kansai Electric Power has been supporting American football, a popular college sport in the Kansai region, since 1988. We are a cosponsor of the Kanden Flashbowl Series of games that are held in spring and fall, and we are working to promote American football among Kansai students.

Kanden Collabo Art 21

Since 2001, Kansai Electric Power has been holding the Kanden Collabo Art 21 public art exhibition in collaboration with the Tanpopo-no-ye Foundation, with the aim of creating an opportunity for people with disabilities to express themselves through art and participate more actively in society. In FY 2010, the tenth year of the event, almost 1,000 works were submitted from the entire Kansai region. Selected works were chosen to create a traveling exhibition that visited 10 venues in the Kansai region for four months starting in late November, in conjunction with Disabled Persons' Week, with the aims of supporting the social participation of people with disabilities, as well as enabling as many people as possible to experience the appeal and possibilities of these works of art.

Support for employees engaged in activities contributing to society

Social Contribution Activities Support System dating from 1992

To support employees who engage of their own accord in community activities or volunteer programs, we offer volunteer timeoff and matching gift programs. We also provide information on volunteer activities through channels such as in-house publications.

Efforts for regional stimulation

Developing promotional activities to attract businesses to Kansai

Given our desire to promote the stimulation and ongoing development of local communities, Kansai Electric Power partners with local governments and economic organizations to support customers that want to relocate to the Kansai region. Specifically, we publish the magazine Community Information and host the Kansai Guide to Investment website, both of which contain information for companies nationwide that are thinking about making local capital investments. These resources include information on industrial promotion policies by local governments, available industrial complexes, and other advantages of establishing facilities in the Kansai region. We are continuing to work on connecting companies that have an interest in the Kansai area with local government authorities by making visits to those companies.

In the Kansai region, which has seen growing numbers of companies in the flat-panel TV industry and in environmental industries related to the production of solar panels and storage batteries, the Kansai Electric Power Group has been leveraging its strength to contribute to local growth and development.

Kansai Guide to Investment Web http://www1.kepco.co.jp/i-park/

Community development activities in the urban areas of Osaka

Kansai Electric Power has been making both infrastructural and organizational contributions to community development activities in the urban areas of Osaka

Among these are our activities on Nakanoshima Island in Osaka. where our head office is located. Nakanoshima is located in a lush environment with abundant water and greenery resources, surrounded by the Dojimagawa and Tosaborigawa Rivers. It is also a central business site where many of Japan's preeminent companies are located. Thanks to its many cultural facilities and historical buildings, Nakanoshima has been nicknamed the "symbol island of Aquapolis Osaka."

The Round Table on the Future of Nakanoshima was launched in 2004 to exchange information on events and town management of Nakanoshima. The association has 28 member companies as of 2011.

Volunteer time-off program

Results (FY 2010): 94 instances totaling 209 days

This system allows employees that participate in activities that contribute to society and meet fixed conditions to take 50% or 100% of the time devoted to such activities as specially recognized time off, up to an annual limit.

Utilized by 15 employees from FY 1992 to FY 2010

This program enables employees who have worked for the company for five years or more to take up to a year off in order to participate in long-term volunteer work for a public social welfare organization. In the case of the Japan Overseas Cooperation Volunteers, the maximum sabbatical period is two years and six months.

Matching gift program

Results (FY 2010): 4 instances totaling ¥310,000

Under this system, the company makes contributions up to a set limit to match support provided, either by individual employees or collected through workplace fund-raising activities, to public organizations that meet fixed requirements.

such as companies that own land in the area, and is pursuing community development to meet the goals outlined in its independently developed urban vision. Kansai Electric Power serves as the secretariat of the association

In 2010, this association established ties with the free magazine published in the Nakanoshima region, Gekkan Tomin (meaning "The Monthly Islander"), thus helping it become actively involved in disseminating information from the area.

In 2010, we continued participating in the Naniwa 808 Bridges Cleanup Campaign at Nakanoshima Garden Bridge. Our activity to clean and polish the Nakanoshima Garden Bridge with scrubbers and brushes contributes to creating a beautiful landscape. When the Junior Chamber International conference was held in Nakanoshima, the association hosted an exhibit and participated in the breakout session on the theme of "Water." In addition to this association, three organizations and government agencies that were involved in the community development of areas around Nakanoshima, such as Midosuji, worked together to hold the Nakanoshima-Okawa-Midosuji Corridor Symposium, highlighting these areas which have been recognized under Scenic Byway Japan. In such various ways, we promoted the community development of Nakanoshima in 2010.

The activities of this association are presented online at Nakanoshima-style.com.

The community stimulation activities of the Round Table on the Future of Nakanoshima have improved the appeal of the entire Osaka region. Kansai Electric Power will continue striving to help stimulate the region through community development efforts not only in Osaka, but throughout the Kansai region.



Nakanoshima, symbol island of Aquapolis Osaka

4 Re

Respect for Human Rights, Development of Favorable Work Environments

Respect for human rights

Basic policy

The Kansai Electric Power Group, aware of the social responsibility it should exercise as a corporation, is engaged in initiatives to deepen a correct understanding and awareness of human rights on the part of every employee in order to eliminate all forms of discrimination, including the *burakumin* issue.

As well as working to develop respect for human rights and a pleasant working environment, we are proactively engaged in activities to create a system with zero tolerance for all forms of discrimination and achieve our goal of being a discrimination-free company.

Kansai Electric Power also understands the international agreements and standards regarding human rights, and rejects

child labor and forced labor. With respect to sexual harassment and power harassment in the workplace, the Company has established Harassment Consultation Desks and is working toward the rigorous prevention of all types of human rights infringement in collaboration with the Compliance Consultation Desks.

Group-wide initiatives

To promote active human rights initiatives in conjunction with Group companies, we support training efforts, share various types of information related to human rights, and are striving to further intensify our activity level in this area.

Leveraging employees' diversity and creating comfortable workplaces

Established a new Diversity Leveraging Group

Having "human development" as a priority, Kansai Electric Power has promoted various initiatives to achieve related goals. As a part of these efforts, we made organizational preparations for the Diversity Leveraging Group in 2010 and established the group in June 2011.

Goals of diversity leveraging at Kansai Electric Power

When all employees learn and acquire the ability to understand, accept, and take advantage of the fact that we have diverse employees with different opinions, we will be able to:

- Develop better ideas and ways of doing things
- Predict and prepare for risks that had not previously been recognized
 Develop the ability to see and think things from our customers' perspectives

Create a strong organization that can adapt to change

When employees feel that their strengths are recognized and accepted:

•Their motivation to work increases and their morale improves

•They can grow themselves, being stimulated by their differences with others

•Their self-affirmation will improve their self-confidence and abilities



Systems for supporting the changing stages of life

To support those who are trying to achieve a work-life balance, we have instituted systems that offer a diverse range of options when it comes to work leave and other work-shift systems.

Major systems

37

Maternity leave	From 6 weeks before birth until 8 weeks after birth
Paternity leave	A 5-day period of leave when a person's spouse is giving birth
Sick/injured child care leave	To take care of a sick child or take a child for a health exam during the period before they are enrolled in elementary school
Family support leave	Paid leave accumulated as part of one's annual paid vacation can be taken to care of a sick spouse or parent or to make hospital visits for infertility treatment
Childrearing leave	Can be taken until the end of the fiscal year when the child turns 3 years old
Family care leave	Can generally be utilized for 3 years or for a total of 93 days
Shortened work hours (for child care)	Can be utilized until the child starts elementary school
Shortened work hours (for family care)	For the period requested by the employee (the period during which a family member requires care)
f-Staff system	This is a system for rehiring workers who previously left their job to have a child, raise children, or care for a family member

creating comfortable workplaces Promoting a diverse workforce

Initiatives to encourage the further success of female employees

In accordance with the letter and spirit of the 1986 enactment of the Equal Employment Opportunity Law, we actively recruit women and assign personnel to tasks without any regard for gender. For example, we are actively placing women in engineering positions as part of a broader effort to expand the range of positions in which women are employed. When promoting an employee to an executive position, the Company conducts evaluations fairly and impartially, basing decisions on individual ability and suitability for the position, while avoiding gender-based discrimination. As a result, the number of women in positions of responsibility at Kansai Electric Power is steadily rising.

Kansai Electric Power has agreed to and signed the Women's Empowerment Principles, guidelines for women's social participation established by UN Women and UN Global Compact.



Female employees active in technical workplaces

	Number of female employees	Number of female employees in positions of responsibility
Fiscal 2005	60	75
Fiscal 2010	112	88

Promotion of employment of older people

Our reemployment system for employees retiring at the age of 60 was introduced in 1996, our efforts to employ the elderly predating the implementation of the Law for the Stabilization of Employment of Older Persons, which mandates such measures, by 10 years. In 2001, we established the e-Staff system, which greatly expanded the types of work covered. In 2006, we revised our system to gradually raise the mandatory retirement age to 65 and expand further the range of positions in which older employees are placed. Today, more than half of our retirees choose to return to work after the age of 60 under the e-Staff system. It enables older employees to continue to use their knowledge and experience in workplaces familiar to them.

Promotion of the employment of people with disabilities

We are also actively promoting the employment of workers with disabilities through our special affiliate company Kanden L-Heart (established in 1993). As a result, our ratio of workers with disabilities was 2.06% as of June 2011, again remaining above the legally required ratio (1.8%).

Kanden L-Heart is working to strengthen its farm rental business, to open up diverse jobs in which people with disabilities are able to work, and to bolster support for those with mental disabilities.

We will continue to promote the employment of people with disabilities, with the goal of increasing their independence and participation in society.



Creating a comfortable workplace environment

Diverse work systems

Kansai Electric Power has introduced several work systems designed to support manageable lifestyles. These include longterm leave systems, such as modified versions of conventional leave known as personal refreshment leave and relaxation leave, as well as an elective work hour system and flex-time system, which aim to take advantage of efficient work patterns.

Appropriate management of working hours

We are endeavoring to monitor employees' working hours accurately and to comply with applicable laws by, for example, ensuring that employees who work long hours receive guidance from industrial physicians. We also require employees who work overtime to receive instructions from management beforehand and to self-report their hours worked. In addition to having management check these reports, we aim to instill an awareness in all employees of the need for the appropriate management of work hours.

Maintenance of stable labor and management relations

Kansai Electric Power has concluded union shop agreements with the Kansai Electric Power Labor Union, and we have built over 50 years of history of working toward the shared goal of improving company productivity accompanied by improving labor conditions. We have built good labor and management relations based on a strong relationship of trust. In order to maintain this good relationship, we will hold operation confabulations about company management plans and other topics among other efforts to promote mutual understanding and agreement between labor and management.

Initiatives to support employee development

Aware that our employees are the driving force behind all the business activities of the Kansai Electric Power Group and that it is their development that underlies the Group's overall growth, we are actively developing a range of initiatives to offer sustained support for the growth of each employee.

For example, in terms of education and training, Kansai Electric Power is making efforts to create even more opportunities for employees to teach and be taught for the purpose of promoting individual employee growth, including efforts to bolster training programs designed for different specialties and levels of ability.

Formulating guidelines and plans for safety and health activities

To create workplace environments where employees can be safe and healthy while they work, Kansai Electric Power promotes efforts aimed at creating stimulating and lively workplace environments. Specifically, the Safety and Health Activity Guidelines establish priority measures for the entire company, and each workplace creates an annual Safety and Health Activity Plan comprised of efforts to be taken based on those Guidelines, and develops its own independent safety and health activities.

2010 Kansai Electric Power Safety and Health Activity Guidelines: Priority Measures

Safety

- Raise the safety awareness and risk sensitivity of employees as it relates to their behaviors
- Promote risk reduction activities
- Bolster the safety management framework
- 4 Ensure the safe operation of vehicles
- 5 Further bolster communications with business partners

Health

- Prevent illness among employees, promote health maintenance and improvement
- 2 Maintain and promote comfortable workplace environments
- Bolster support systems

Specific safety activities

Formulating accident recurrence prevention policies

When an accident occurs, we examine and analyze what happened, formulate policies to prevent a recurrence, and develop company-wide response measures. As a result of these efforts, our accident frequency rate is lower than the national rate.



Frequency rate: An internationally accepted measure that expresses the rate of accident occurrence. Specifically, it indicates the number of lost-work-time accidents per 1,000,000 labor hours.

Specific health activities

Promoting and strengthening mental health policies

In an effort to strengthen our self-care policies, Kansai Electric Power began promoting the use of an online stress diagnostic tool in June 2010. We also introduced a Return-to-Work Support Program to help employees facing mental health challenges make a smooth transition back into the workplace.

Highly Transparent and Open Business Activities

Communicating with stakeholders

Deepening communication via the Internet

With the growth of the Internet, websites are playing an increasingly important role in the dissemination of corporate information. Kansai Electric Power strives to disseminate information guickly and accurately, and makes daily efforts to improve and develop online content to make its website useful to customers.

Kansai Electric Power's website Kansai Electric Power's mobile website Web Kansai Electric Power 3 website http://www.kepco.co.jp/index.html http://kanden.jp

Information dissemination services using the Internet

Real time information from the Sakai Solar Power Station

This plant began partial operations in October 2010, and its output is updated on our website at 20-second intervals. We also publish both today's and yesterday's power generation results, solar radiation, and air temperature, along with a live video feed.



Real time information from the Sakai Solar Power Station Web Real time information from the Ganal Gold Forest for the Sanat Gol

Electricity Forecast

To communicate every day's electric power usage status in a way that is easy to understand, from June to September 2011, we published an "Electricity Forecast" on our website and via Twitter, visibly rendering the predicted maximum output of electricity within our service area and our supply capabilities at peak times. In August and September, we published a Weekly Electricity Forecast to notify users of the upcoming week's electricity demand and supply expectations.



Electricity use notification service

In recent years, there has been increased interest in the "visible rendering" of electricity use. We have made it possible for

customers to s a visual renderi of this month electricity us actual electric use over the pa 24 months (fe and use), and th CO₂ emission associated with th use.

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Electricity use notification service http://www.kepco.co.jp/service/miruden/index.html

Lightning location and thundercloud observation information service

To ensure that we are able to provide a stable supply of electricity, Kansai Electric Power uses its own independent systems to publicize information on lightning locations and thundercloud observations in the Kansai region. Users can also get information on the effects of lightning on electric power.



Lightning location and thundercloud observation information service Web http://www1.kepco.co.jp/kaminari-info/index.html

Interaction with local communities via PR facilities

We have established PR facilities at our power plants and other locations to help our local communities better understand our business activities and the initiatives being taken in the electric power industry, and to enhance communication with those communities.

In October 2010, we renovated the PR facilities at the Sakaiko Power Station, a thermal power plant that has been outfitted with a cutting-edge combined-cycle power generation system.

This facility, nicknamed El Cool Sakaiko, explains our company's efforts to achieve a low-carbon society through easily understandable videos and displays.



El Cool Sakaiko, our PR facility at the Sakaiko Power Station (Tour reservations required)

Mobile classrooms for the next generation

Our future is in the hands of the children who form the next generation. One of our most vital missions at Kansai Electric Power is to impart to the younger generation a sense of what energy is and why it is so important. Members of our staff visit local elementary and junior high schools to hold "mobile classrooms" teaching students about energy. These mobile classrooms explain the basics of how electricity is produced and transmitted over distances, as well as how it is used and what we can do to conserve energy and protect the environment.

The classes are devised to enable students to learn about energy in fun, simple ways, such as operating a hand-turned generator to light a light bulb, or using experimental equipment to explain the effect of CO₂ on global warming.

Providing information through print publications

We are making use of media, including print publications, to broadly provide information to deepen understanding of the business activities of the Kansai Electric Power Group.



Watt (issued quarterly

Our information disclosure following the Great East Japan Earthquake

Since the Great East Japan Earthquake, Kansai Electric Power has been communicating information about our nuclear power safety policies and support for the disaster-stricken region via press conferences, our website, and newspaper ads. We plan to continue communicating

information actively, clearly, and concisely through various channels in an effort to restore trust in nuclear power generation.



Reflecting community opinions in our business activities

To help members of the community gain a deeper understanding of the Company's business activities, as well as to solicit opinions and requests that the Company can reflect in its operations. Kansai Electric Power sends staff from its business locations to visit customers' homes and hold discussion meetings aimed at local key figures and opinion leaders.

We thus invite a range of opinions and requests concerning our business activities, both at events to enable interaction with people from local communities and during everyday operations. We value every piece of feedback, and are developing a diverse array of public consultations in order to incorporate that feedback into our various business activities. At the "Dambo-no-Koe" event started in 1994, Kansai Electric Power employees share opinions received from members of local communities with the Company in order to improve operations.



Meeting in progress

Information disclosure in IR tools

We provide an outline of our business activities, business objectives, and financial data for our shareholders and investors.





Web

vear)

(Contains comprehensive information (Contains information including regarding our business activities for business objectives, electricity our shareholders, investors, and sales, capital investments, and business partners: published once a data from several years of financial statements: published once a year)

Shareholders and Investors (IR Information) http://www.kepco.co.ip/ir/index.html



Strict Enforcement of Compliance

Consciousness raising and autonomous efforts in individual workplaces

Instilling even greater compliance awareness through on-site dialogue and training activities

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To support independent and effective workplace activities with a view to instilling an even greater degree of compliance awareness, the staff of Kansai Electric Power's Legal Department have been conducting dialogue and training activities on site at frontline workplaces since 2004. In addition to activities for the managers indicated below, we are continuing to conduct trainings for operator level employees. In FY 2010, we conducted a total of 32 trainings for operator-level employees in eight departments, including those involved in nuclear and thermal power.

We also conducted dialogue and training activities for management-level personnel at a total of 26 workplaces. Specifically, we reminded managers about the precautions that need to be taken by people in upper level positions and about the importance of workplace vigilance. We also held an educational dialogue on compliance issues related to workplace environments, such as harassment



Discussion and training activity

Expanding the on-site training opportunities for Group companies

The Legal Department has been conducting on-site compliance training for Group companies since FY 2007. In recent years, the number of requests for on-site training has increased, and the number of Group company-led events, where the Group company establishes the theme in accordance with its business activities, has also risen. To expand this kind of virtuous cycle, in FY 2010, we actively encouraged requests for on-site training, and conducted 30 trainings at a total of 20 companies, sometimes establishing different training times for employees at different levels within the company.

Compliance promotion system

To promote compliance activities at each workplace, the department and branch managers assign compliance promotion staff (primarily section head level personnel) to serve as compliance promotion officers and develop independent compliance-related initiatives.

To respond to the compliance-related concerns of employees and others, Compliance Consultation Desks have been established in the Office of General Administration and in external legal offices. These desks can be used by the employees and temporary workers of all of the Kansai Electric Power Group companies, as well as by our business partners, and thus provide a structure through which we can collect a broad range of information on risk. In FY 2010, we updated the informational leaflet we print for our business partners and made it available at the reception desks at each Group company to ensure that people know about the Compliance Consultation Desks.

The notifications and consultations that are handled at these Compliance Consultation Desks are all reported to the Kansai Electric Power Group Compliance Committee. A total of 41 items were reported for the entire Group in FY 2010, with relatively more of those items reflecting problems related to the workplace environment and information management.

Kansai Electric Power Group Compliance Consultation Desks



Initiatives to establish autonomous activities in each workplace

To raise awareness of the compliance risks that arise in everyday affairs, since 2007, we have been implementing Workplace Discussion Activities among employees, primarily led by the onsite compliance promotion staff.

We continued these efforts in FY 2010, and various strategic activities were developed and launched in each workplace using educational tools, such as the Compliance Case Studies Collection, and other original materials.

In FY 2011, we will continue conducting Workplace Discussion Activities. Also, to instill a greater level of awareness of compliance risks at the workplace level, we will create tools that promote discussion, such as materials that highlight the importance of legal procedure management so that workplaces can be more proactive in their efforts, and will strive to further stimulate the development of independent workplace activities.

Improving different types of promotion tools and disseminating legal information

To cultivate the ability to recognize compliance-related issues that arise in everyday business operations through specific case studies, Kansai Electric Power has compiled its New Compliance Case Studies Collection. In FY 2010, nine new cases were added to create Volume 4.

We disseminate several publications to all employees in a timely manner, including Column on Current Affairs in Compliance,

which conveys educational messages regarding issues that are attracting a high level of social interest, and Legal Information, which explains new laws and legal issues. We have also continued to develop initiatives that support efforts to raise awareness and impart knowledge related to compliance.

In FY 2011, we will continue to take various opportunities to promote awareness and education activities.



Legal Information Email Magazine

Efforts to prevent legal procedure errors

In FY 2010, we identified improprieties in the conduct of our legal procedures, including failures to submit necessary reports and applications related to our facilities. To prevent the recurrence of such missteps, in FY 2011, we are diligently working to create tools that will help reaffirm the importance of legal procedure

Promoting information security countermeasures and ensuring thorough protection of personal information

Advance of information security management

Kansai Electric Power has established the Infrastructure Development Committee chaired by the Vice President with the aim of building a strong management base capable of supporting mid-term and long-term growth. One important management

Viewpoints for deliberation of information security management

Organizational measures

2 Personnel measures such as education and training

Organizational measures

- Appointment of the General Manager of the Management Innovation and IT Headquarters as Chief Privacy Officer.
- Formulation of Information Management Regulations, and production of the Information Security Rulebook explaining these regulations in straightforward terms for all employees
- · Self-checking by Information Security Managers regarding the daily handling of information, including the safe-locking of confidential documents and their appropriate disposal.

Personnel measures

- · Enforcement of rules by means of intensive training for new employees, managerial staff, and other groups.
- · Education program on information security for all employees at least once a vear.
- · Workplace discussions using case studies, etc.
- . Initiatives to prevent the recurrence of information leaks caused by the use of file sharing software

O Physical measures

 IC cards (employee identity cards, etc.) to control access to offices. zoning of offices by partitions, strict management of confidential documents by means such as additional allocation of shredders and locked furnishings.

Initiatives for protecting personal information

In March 2005, Kansai Electric Power established internal rules including Personal Information Protection Regulations, which stipulate the purposes for which personal information can be used within the company and methods for responding to personal information disclosure requests by customers.

After the Act Regarding the Protection of Personal Information went into full effect on April 1 of that same year, we took steps aimed at bolstering our personal information protection practices, including creating a Personal Information Handling Manual for each of our departments and adding greater detail to our internal rules.

To raise awareness among individual employees

Kansai Electric Power is continuously revising its rules and systems and striving to make employees aware of these changes. Every year, we check the status of each workplace, and have the results of those checks re-checked by a third party. This helps us ascertain and improve the level of compliance with various rules and facilitates the correction of inappropriate rules.

management and to support efforts aimed at raising awareness of this issue in our workplaces.

We are promoting ongoing efforts with regard to those procedures that are legally required for our business activities, including efforts to ensure that regular updates are made to legal procedure checklists prepared by each department.

issue it is addressing is the promotion of information security management.

To advance effective, efficient security control measures, the committee deliberates on the formulation of annual plans and on midterm progress made, from the following four perspectives.

- 3 Physical measures such as document management and access control for offices
- 4 Technical measures such as improving computer systems

Practical measures implemented

- **4** Technical measures
- IC cards (employee identification cards, etc.) for authorization of computer users.
- · Checking by immediate managers to prevent fraudulent use of customer information systems · Data-file security system that automatically encrypts data files taken
- out of the company • Use of system logs to prevent fraudulent manipulation by IT staff.
- Introduction of measures to restrict the connection of external storage media to in-house computers.
- · Prevention of unlawful access from outside the company through measures to address system vulnerabilities.

Enhancement of information security by IC cards (employee id ification cards. etc.





Individual authorization for logging in to the in-house network

Unlocking with keycards and monitoring of entrance and exit history



external memory media

Every year, we explain the basic rules, identify rule violation hazards, and hold trainings aimed at calling all our employees' attention to these issues. We also distribute various email magazines, some intended for the entire company and some intended for our branches. We use these to try to spread knowledge about policies for preventing leaks of personal information and to raise our employees' IT knowledge. We will continue conducting outreach activities among our employees to help ensure that everyone is engaging in appropriate information management practices.

Strengthening Group governance

To fully ensure Group-wide information security compliance and appropriate handling of personal information, in December 2004, we formulated the Kansai Electric Power Group Information Security Guidelines.

In January 2007, to further improve our security level, we revised those Guidelines and began encouraging each of our Group companies to independently promote their own information security management practices.

Kansai Electric Power Group

CSR Report 2011

This report is also available on the Internet (http://www.kepco.co.jp/english). Please direct your opinions and questions about this report to the CSR Promotion Group.

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