



CSR Action Principles

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Safe and Stable Delivery of Products and Services As Chosen by Customers

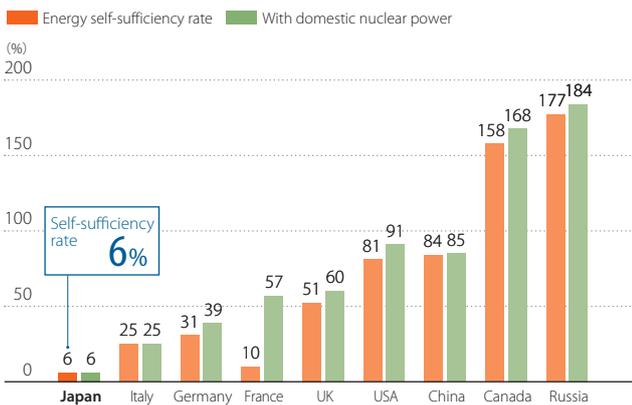
The Kansai Electric Power Group will endeavor to develop and improve the products and services as chosen by customers and as a business operator responsible for lifelines that are indispensable to society we will take every conceivable measure, day by day, to deliver our product and services safely and stably.

Ensuring diverse power sources for stable supply

Energy risks faced by Japan

Japan's energy self-sufficiency rate is only around 6%; for most of its power needs, Japan must rely on imported energy. Japan imports much of its crude oil and liquefied natural gas (LNG) from the Middle East, where political conditions are unstable. Overdependence on these sources of energy presents risk in terms of both price and the stable supply of energy. In contrast, the uranium used in nuclear power plants is widely distributed throughout the world, and many of the nations where it is produced are politically stable, which enables a stable supply of uranium. To ensure stable future energy supplies, it is vital to maintain diversified resource procurement and an optimal mix of electric power generation methods.

Energy self-sufficiency rates of major countries (2014)

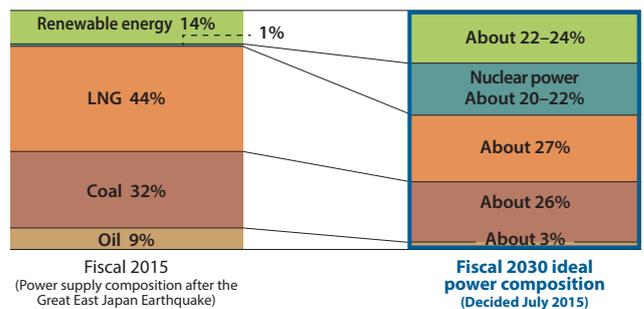


Source: Federation of Electric Power Companies of Japan, "Consensus document on nuclear power"

Energy mix

In July 2015, the government established a long-term energy supply and demand outlook (energy mix) that expresses how energy supply and demand should be in Japan for fiscal 2030. Within this, nuclear power is specified to have a fixed ratio of 20–22% of the total power supply composition. Furthermore, while recognizing limitations including those related to the environment and location, a goal of approximately doubling the fiscal 2014 levels to 22–24% is indicated for the incorporation of renewable energy.

Fiscal 2030 energy mix

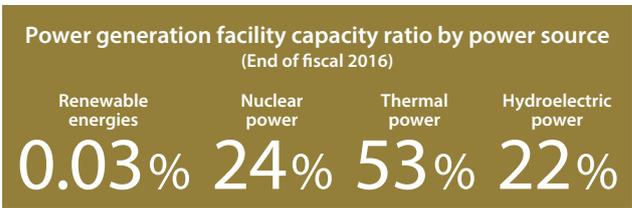


Created based on the Agency for Natural Resources and Energy's "Long-term Energy Supply and Demand Outlook" (July 2015), "Documents Related to the Long-term Energy Supply and Demand Outlook" (July 2015) and other materials

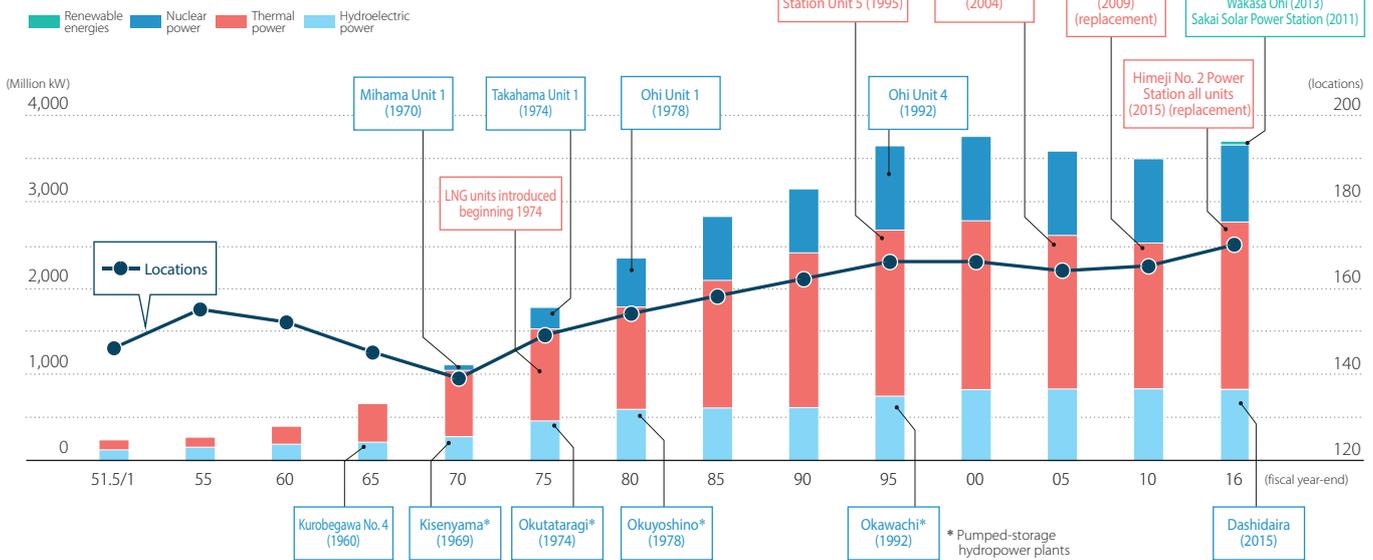
1 Safe and Stable Delivery of Products and Services As Chosen by Customers

Facilities configuration based on S+3E

To carry out our mission of providing customers with high-quality, economical electricity on a stable basis, Kansai Electric Power has adopted the “S+3E” approach, which places top priority on Safety in the effort to achieve Energy security while maintaining a focus on Economy and Environmental conservation. Through this approach we work to achieve a well-balanced combination of nuclear, thermal, and renewable energy power generation.



Changes in power source composition

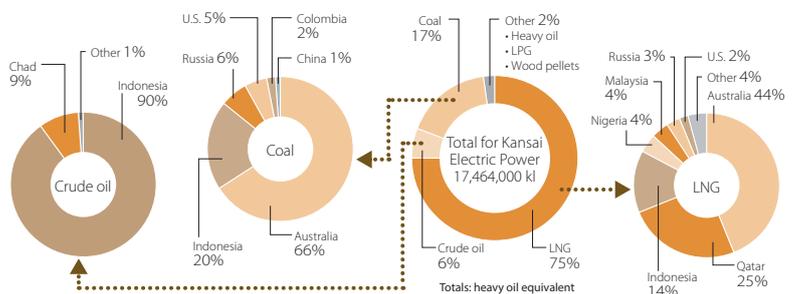


Flexible and stable fuel procurement

Efforts for stable fuel procurement

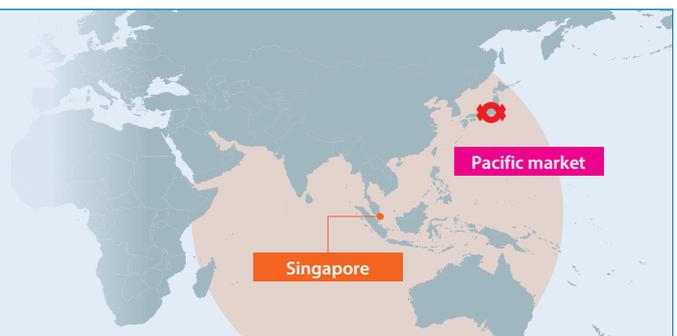
Fossil fuels come with a variety of problems, including their concentration in certain regions and political instability in the countries that produce them.

In order to procure fossil fuels stably, economically and flexibly, our company is involved in every stage from fuel production to receiving. We are also working to diversify both procurement sources and price determination methods.



Establishment of a new company to achieve nimble LNG procurement and sales

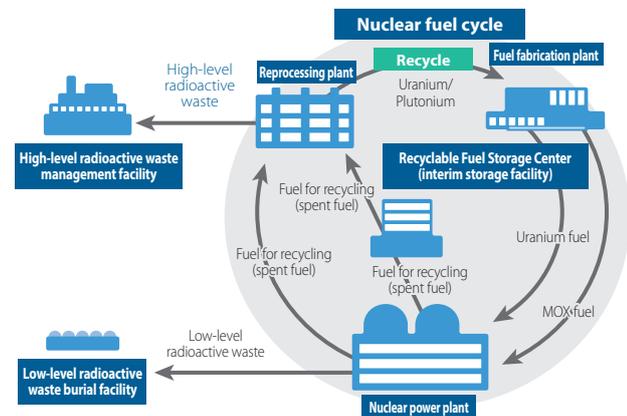
In April 2017, we established KE Fuel Trading Singapore Pte. Ltd. as a new company with the goal of strengthening LNG procurement and sales in Singapore. We are striving to procure and sell the right amounts at the right times with excellent stability, adaptability and economy by strengthening a structure that can respond adaptively according to the requirements of the moment to changes in demand and other factors, and by expanding our information gathering network in Singapore, which is a central base in the Pacific area LNG market.



Securing stable energy through the nuclear fuel cycle

Nuclear fuel cycle

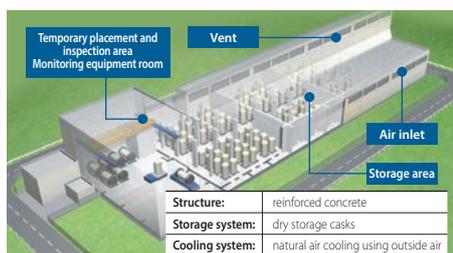
Nuclear fuel is stably procurable and we can obtain a large amount of electricity from a small amount of fuel. After a fuel loading, a reactor generates electricity for more than a year. For this reason, nuclear power is said to be a “semi-domestic energy resource.” In addition, spent fuel contains reusable elements (uranium and plutonium). The elements can be reprocessed and loaded once again as fuel. Overall, the nuclear fuel cycle is a practical way to secure stable energy for Japan, a resource-poor country.



Reference: “Graphical Flip-chart of Nuclear and Energy Related Topics 2015,” Federation of Electric Power Companies of Japan, other sources

Recyclable Fuel Storage Center

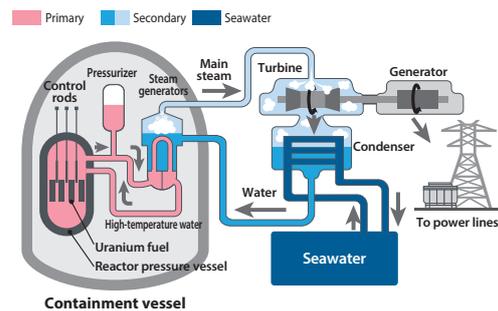
Because spent fuel can be reprocessed and used again, it is called “recyclable fuel.” Until recyclable fuel is reprocessed, we temporarily store it (interim storage) in a recyclable fuel storage center, which is an interim storage facility. By adjusting the time until reprocessing, we enable the stable operation of power plants into the future while advancing the nuclear fuel cycle. Our company prepared a “Plan to promote measures for spent fuel” in 2015, and we are working as a unified company on efforts toward obtaining sites and promoting understanding about the necessity and safety of it widely among the public in power consuming areas.



Initiatives prioritizing safety at nuclear power plants

Nuclear power generation

Nuclear power generation uses the heat energy of uranium fission to create steam. The steam drives turbines that generate electricity.



Enhancing nuclear power safety and reliability

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

Ensuring nuclear power plant safety

Nuclear power plants are designed to include multiple safety systems to prevent a malfunction or human error from resulting in an accident, premised on the fact that machines break down and human beings make mistakes. In the unlikely event of a malfunction occurring, multiple safety functions come into action: detection of abnormalities at an early stage; automatic shutdown of the nuclear reactor; cooling of the fuel with cooling water; and containment of radioactive materials. In addition, based on a defense-in-depth policy, and naturally in compliance with the new regulatory requirements issued by the Japanese government in the wake of the accident at TEPCO’s Fukushima Daiichi Nuclear Power Station in March 2011, Kansai Electric Power is taking safety measures to cope with a “severe accident” and other measures that go beyond the existing regulatory framework. We conduct inspections of and carefully monitor all facilities, carry out training as before, and run regular drills to practice responding to severe accidents. In these ways we strive to further enhance the safety and reliability of nuclear power generation.

Strict radiation control

To monitor the effects of radioactive substances on the surrounding environment, multiple monitoring stations and monitoring posts are located around each plant. Atmospheric radiation levels are monitored around the clock, and the data can be accessed on our website and elsewhere. In addition, Kansai Electric Power regularly samples soil, river water, seawater, agricultural products, and marine products in the vicinity of its nuclear power plants, and tests the levels of radioactive substances contained to monitor impact on the environment.

1 Safe and Stable Delivery of Products and Services As Chosen by Customers

Safety-first business activities—based on lessons learned from the 2004 accident at Mihama Nuclear Power Station Unit 3

Since the accident at Mihama Nuclear Power Station Unit 3, our entire company has been unified in undertaking “safety first” business activities as the highest priority of our management. We reasserted the fact that “safety first” is a fundamental management principle as we created our “Key efforts for the realization of the Medium-term Management Plan of the Kansai Electric Power Group (2017)” in April 2017.

Measures to prevent a recurrence of the accident at Mihama Nuclear Power Station Unit 3

On August 9, 2004, an accident involving the rupture of secondary system piping occurred at Mihama Nuclear Power Station Unit 3. Based on the President’s Declaration “Ensuring safety is my mission, and the mission of the Company,” we have strictly implemented recurrence-prevention measures, with a firm determination that we shall never cause such accidents. On every August 9th, which is set as “Safety Vow Day,” every manager and other employee observes a moment of silence and refers to the Conduct Card in which are written personal safety declarations.



President Iwane observes a moment of silence in front of the Safety Vow Memorial (August 2016)



Safety Vow Memorial

Developing a safety culture

We have been making efforts to enhance a safety culture in order to implement “safety-first” business activities and not to forget the lessons from the Mihama Nuclear Power Station Unit 3 accident. Moreover, after the accident at the Tokyo Electric Power Fukushima Daiichi Nuclear Power Station, we established our Commitment to Enhancing Nuclear Safety. By promoting deeper understanding on this Commitment and by undertaking efforts related to nuclear power safety, we continue to enhance a safety culture.

Commitment to Enhancing Nuclear Safety

Preface	Every one of us shall remember the lessons learned from the Fukushima-Daiichi nuclear accident and ceaselessly strive to enhance nuclear safety to protect the people not only in the plant-hosting communities but also the whole country, and to preserve the environment.
Characteristics of nuclear power generation and risk awareness	Nuclear power generation has superior characteristics in terms of energy security, prevention of global warming and economic efficiency, and is an essential power source for the future. On the other hand, nuclear power generation has risks of radiation exposure and environmental contamination. Every one of us shall always bear in mind that once a severe accident happens due to lack of proper management, it could cause enormous damage to the people and the environment.
Continuous removal/reduction of risk	To enhance nuclear safety, we shall fully understand the characteristics and risks of nuclear power generation and continually remove or reduce such risks while identifying and evaluating them, never believing at any moment that we have reached the goal of ensuring safety. These efforts shall be conducted at each level of the Defense-in-Depth.
Development of safety culture	Safety culture is the basis for continuously removing or reducing risks. Since the accident of Mihama Unit No. 3, we have been reviewing and improving our safety culture, and we shall develop such safety culture. To this end, we shall always be ready to question anything, learn from others and listen to the voices of society and discuss issues uninhibitedly while respecting diverse opinions with further efforts.
Commitment to enhancing nuclear safety	Enhancing nuclear safety is the overriding priority in the company. It is also important to promote two-way communications with the people in the plant-hosting communities and the whole country, and to share common perceptions on nuclear safety. Under the President’s leadership, every one of us shall work together to tirelessly enhance nuclear safety.

Fostering an unshakable group-wide safety culture

Based on the lessons from the Mihama Nuclear Power Station Unit 3 accident, we are continuing safety efforts that put preserving the safety of every person involved in the business activities of our company first. We share a strong belief that “we will not allow misfortune to occur to the colleagues who work with us or their families.” This includes our partners and the staff of subcontractors. We are striving to cultivate a culture that prioritizes the assurance of safety and to practice safe conduct.

Safety first is set as a management criterion in our Management Philosophy. In addition, we aim to make “our beliefs about safety” and our Safe Action Declaration in the Kansai Electric Power Group Safe Action Charter* further permeate the group. We also convey

the details of these principles to our subcontractors and deepen information sharing and communication. By doing these and other things, we are working to cultivate a group-wide safety culture that never wavers.

* For details, refer to page 90.



Undertaking a safety activity in unity with a subcontractor

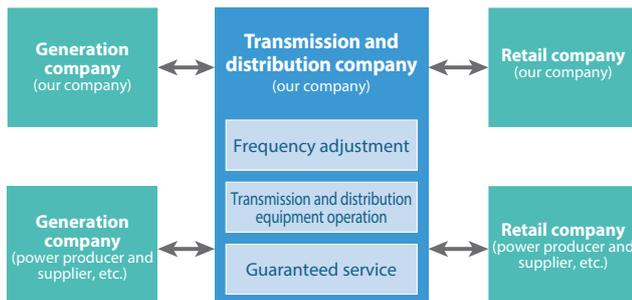
Maintaining power supplies with the invariable safety and stability after the complete liberalization of the retail electricity sales

Preserving the quality of electricity in the new energy era

Every customer has been able to choose among power companies freely since April 2016. Along with the complete liberalization of the retail electricity sales, we have positioned our corporate businesses into three categories—generation, transmission and distribution, and retail—that will continue to fulfill individual roles.

In order to assure stable supply from a neutral and fair stance, our transmission and distribution business will maintain the supply and demand balance for entire areas, construct and maintain transmission and distribution equipment and provide guaranteed* service.

* This service offered by ordinary transmission and distribution businesses is always provided for users who are unable to establish a supply contract with any retailer due to, for example, their withdrawal from the market.



Training the personnel who support safe and stable supply functions

Systematic drills are carried out on a continuous basis to train individuals and provide necessary specialized skills. Additionally, to properly preserve and pass on these techniques and technical skills throughout the Group we have a system in place that certifies as specialist technicians those individuals who have advanced technical capabilities and who demonstrate leadership. We have also introduced a system for ascertaining the technical capabilities of individuals, along with various other measures.

Specialist technicians with specialized skills

216 people

Individuals with high levels of technical ability and outstanding leadership qualities are selected and recognized (As of the end of May 2017)

To provide high-quality electric power

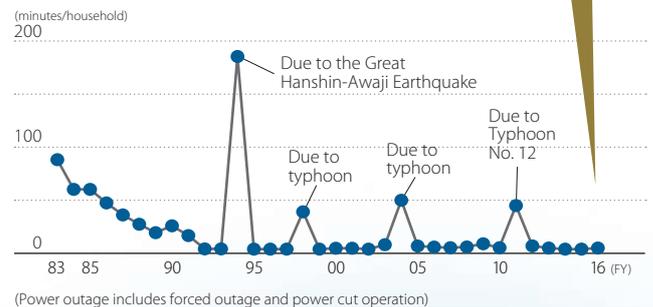
Kansai Electric Power works to operate power grids that provide a reliable link between power plants and consumers and optimize the configuration of facilities. We are also making thorough efforts to prevent failure recurrence. As a result of our efforts, we are maintaining one of the world's highest power quality levels in the transmission and distribution business.

The Company continues to develop new technologies and introduce new construction methods for the purpose of preventing failures and for swift recovery in the event an accident does occur. Equally important, systematic renovation is in progress for aging facilities.

Fiscal 2016 power outage time

5 minutes

Annual duration of power outage per household



1 Safe and Stable Delivery of Products and Services As Chosen by Customers

Preventing electrical accidents

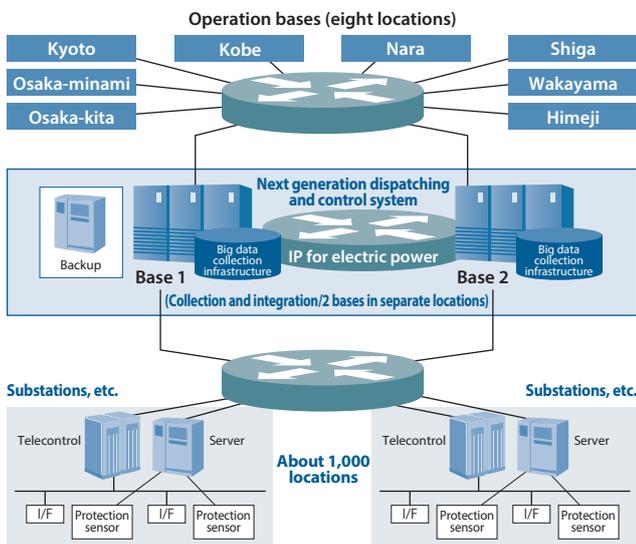
If something approaches, touches or damages one of our electrical facilities, including transmission and distribution equipment, injury due to electric shock, wide-area power outages and other serious impacts on society could occur.

In order to prevent such electrical accidents, we provide information about things that construction companies should be aware of during construction and that customers should keep in mind during daily life, for example, on our website and through various public relations activities.

Construction of the next generation of dispatching and control center system

We are advancing work to update the current dispatching and control center system for the monitoring and control of electric power systems of 275 kV or less. In this next-generation system, we will combine eight area systems into one system with two bases. Our intention is to improve availability at times of large-scale disasters through wide area automatic recovery and mutual backup between the bases. Through this and other features, we will continue contributing to the stable supply of power.

Next-generation dispatching and control system



Steady repair of aging facilities still in use that cross the Kansai region from east to west

The 275 kV New Kakogawa Itami Line is an important transmission line that moves electricity generated at thermal power plants in the Himeji area of Hyogo Prefecture toward Osaka. Considering that 68 years have passed since it was built and problems with the equipment have developed, we are systematically advancing repairs in order to maintain a safe and stable supply of electricity.

We are advancing work for this project with "safety first" and uncovering risks through open and frank communication with the employees of subcontractors and manufacturers.



Recovery from snow damage incidents at distribution facilities

A snowstorm that struck the northern part of the Kansai region in the middle of January 2017 resulted in damage in multiple locations. Our equipment was among those damaged, particularly in the Kyoto, Himeji and Shiga areas, and about 50,600 customers lost power in total. Through the cooperation of employees from our company and subcontractors in removing fallen trees and conducting other tasks, we were able to restore power almost completely one day after the damage occurred. Moreover, at our company, we have prepared systems for conducting rapid recovery work, including the placement of snowmobiles and crawlers in regions where heavy snows occur. In addition, we are working to strengthen coordination with local governments and gather information when roads become blocked.



Keage Power Station recognized as an IEEE Milestone

On September 12, 2016, the IEEE, which is the largest electrical and electronic engineering specialist organization in the world, recognized the Keage Power Station, which our company owns in Kyoto, as an IEEE Milestone.*

The Keage Power Station began operation using the canal from Lake Biwa in 1891 as the first hydroelectric power station for industrial use in Japan. As a forerunner among hydropower stations, the Keage Power Station was recognized as valuable for contributing to the modernization of Japanese industry.

Even though over 100 years have passed since the Keage Power Station began operation, it still continues to send electricity to the city of Kyoto.

* The IEEE Milestone is an award of historical achievement recognizing revolutionary innovations that were developed at least 25 years ago and have contributed greatly to the development of local communities and industry.



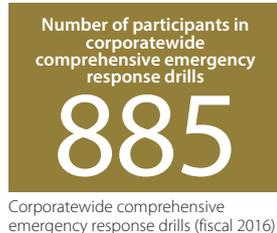
Preparing for a natural disaster

Preparing for a major disaster

Based on our mission of providing stable electric power, Kansai Electric Power promotes disaster mitigation initiatives that will strengthen facilities to withstand disaster. We have also put in place a disaster control system to enable rapid recovery from various kinds of natural disasters. In the event of Nankai Trough Earthquake, we will follow the basic plan for mitigating disaster announced by the Japanese government and take disaster response and recovery measures.

Strengthening the disaster response system

We are enhancing our response systems to prepare for rapid initial response to the occurrence of disasters. This includes the designation of individuals who would arrive at the workplace early and night watches by supervisors, along with the implementation of trainings focused on initial response several times a year. We are also seeking to improve employee skills in responding to disasters and increasing their awareness about disaster preparation. We implement annual companywide comprehensive disaster response trainings with a structure that incorporates the entire company and has the president as its chief. We do these things not only to prepare for the occurrence of earthquakes but also considering cases with severe conditions such as the occurrence of a nuclear power disaster at the same time or occasions when the balance of power supply and demand is tight.



Strengthening collaborative ties with disaster response entities

If a large-scale wide-area disaster should occur, there are limits to



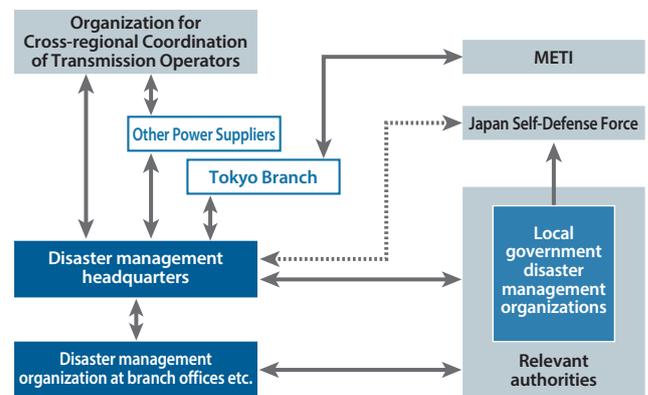
Training to load high-voltage generator vehicles on Maritime Self-Defense Force air-cushioned landing craft and to unload and drive them on a sandy beach.

what our company alone could do to respond. For this reason, we also cooperate with governments, police, fire departments and other concerned external organizations as well as other power companies and do everything that we can to restore power as quickly as possible. In order to enable smooth mutual cooperation during times of emergency, we are working to build face-to-face relationships with these groups at ordinary times. In addition to actively participating in the disaster trainings of local governments, we have made agreements for mutual cooperation with the Chubu Region Ground Self-Defense Forces and Kure District Maritime Self-Defense Forces, and we are holding related meetings and trainings at least once a year.

Preparation for disasters does not change even in a new business environment

With the full liberalization of the retail market for power, numerous companies are entering the electricity business. As a result, power recovery measures once handled by Kansai Electric Power alone will be carried out by multiple suppliers. We will continue to work to provide stable power supplies considering also the legal unbundling of the transmission and distribution sector. In order to do so, we are seeking to cooperate actively with others, including the Organization for Cross-regional Coordination of Transmission Operators and new businesses.

Emergency system for communicating with relevant authorities



Disaster Preparedness Handbook (left)
Kansai Electric Power Disaster Preparation Measures (center)
Kansai Electric Power Disaster Preparation Measures video (right)

Countermeasures for Nankai Trough Earthquake

In addition to preparing and publishing disaster management operation plans for Nankai Trough Earthquake with a huge tsunami, with "protecting human life" as the fundamental principle, in order to "avoid devastating impacts on the economy and society," we are advancing comprehensive countermeasures deploying a variety of structural and nonstructural measures.

For example, at underground transformer substations where inundation can be anticipated, we are making entrance doors watertight and installing removable waterproof panels to try to minimize the extents of power outages. Moreover, in order to ensure fuel for vehicles used in disaster recovery, we have signed agreements for priority fuel supply. We are also regularly conducting training for construction of and fueling at temporary fuel supply spots after submitting planning documents for temporary storage and handling to some of the concerned fire departments.



Training for construction of and fueling at a temporary fuel supply spot

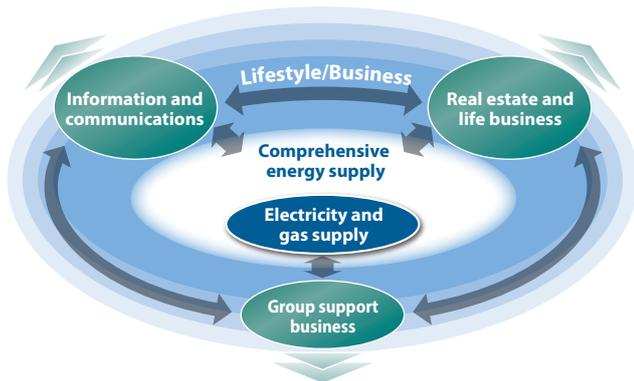
1 Safe and Stable Delivery of Products and Services As Chosen by Customers

Providing services as a consolidated group

Aiming to be “the best partner in daily life and in business”

Our corporate group has been meeting the various needs of our customers and society by offering total solutions that combine our services, including comprehensive energy supply, which is focused on electricity, as well as information and communications, and real estate and life business. In order to have customers choose our group and to realize further growth for the group in the new energy era, we will continue to seek to be “the best partner in daily life and in business.” Along with the services of our corporate group companies, including comprehensive energy supply as our core, we will do this by providing a wide range of services that provide security, comfort and convenience from the customer perspective through alliances with other businesses.

Business areas for strong growth



Services for residential customers

We released the new “e-Smart 10” and “e-Otoku Plan” electricity rate options and began providing Kanden Gas in April 2017. In addition, we are offering services that support daily life such as a Run-to-You Electricity Service that dispatches help to customers when they have troubles related to electricity, Hapi e-Kurashi Support that consists of responding to daily life problems and member benefit services, and Hapi e-Points that can be accumulated by using our electricity and gas. As a comprehensive energy company that supplies not only electricity but also gas, we will offer compatible prices and tailored services to provide customer satisfaction. (See page 45 for details about each type of lifestyle support service and page 20 for details about Kanden Gas.)

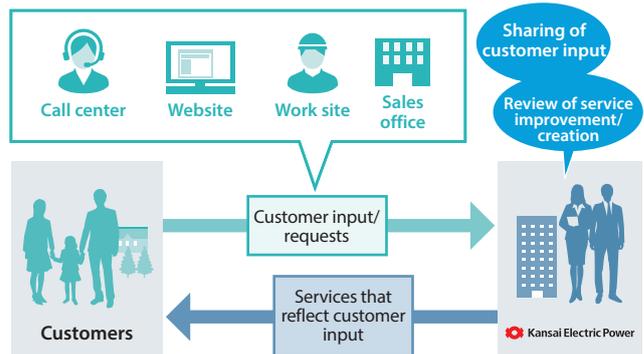
Number of reform cases based on customer feedback

90

We are currently investigating reform measures for 21 cases as of the end of April 2017

Service improvement and service creation to reflect the input of customers

We work to improve and create services in response to requests received from customers through our call center, website, etc.



Examples of improved services that reflect customers' ideas and requests

Service development example

I wish you would provide a service that allowed checking the electricity usage status of families that live far away!

Lifestyle rhythm notification service for families and others that live at a distance using Hapi e-Miruden



Started accepting applications in January 2017!

- 1 This service uses electricity consumption data.
- 2 This service utilizes refrigerator use pattern data.

Customer satisfaction survey

We ask customers who have made an inquiry to participate in a survey in order to gather customer impressions of the people who handle their calls and to evaluate the handling of their issues.

We reflect the results of these surveys in trainings about how to respond to customer expectations swiftly and precisely, as well as in drills to ensure complete safety during work and to increase technical skills as electrical professionals. In these ways, we are striving to deliver both electricity and peace of mind.

92.3%

of the customers who used our Run-to-You Electricity Service were satisfied

Create new services and value that meet customer needs

At K-Opticom Corporation, we are providing services that are attractive to customers. In addition to the “eo Hikari net,” “eo Hikari denwa” and “eo Hikari terebi” fiber to the home (FTTH) services for network, telephone and television, which utilize our own optical fiber network that has high speed and reliability, we offer “mineo” mobile phone services and, since April 2016, “eo Denki” electricity services.

Moreover, since April 2017, taking the beginning of the full liberalization of the retail market as an opportunity, K-Opticom has been offering the Kanden Gas “Nattoku Plan” and “eo Denki,” which are provided by our company, as a set for customers who are already using “eo Hikari.”

We will continue meeting the needs of our customers by providing new services and value through collaborations with other companies and different industries, for example.



K-Opticom Corporation service brands

Lifestyle services with the confidence of our customers as the foundation

With quality is our top priority, we deliver lifestyle-related services to household customers. These services provide peace of mind, comfort and convenience and are deeply connected to their lives. In this way, our individual companies seek to increase their earnings and to make our corporate group the one that our customers trust and choose as the “best partner for their lifestyles.” Among these services, considering the arrival of a society in which the average age is extremely high, in order to further enhance the service range and contents of services related to caregiving, our company and KANDEN Security of Society, Inc. (KANDEN SOS) purchased all the shares of Keihan Life Support Co., Ltd. in April 2017, making it a consolidated subsidiary company. (In July the same year, the firm name was changed to Kanden Life Support Co., Ltd.)

In the future, employing the comprehensive abilities of our corporate group, we will support the realization of peace of mind, comfort and convenience in customer lifestyles even more than before. For example, we will provide high-quality caregiving services to customers in the Kyoto-Osaka-Kobe region through a two-company structure with Kanden Joy Life Co., Ltd., which is a caregiving business company in our corporate group. At the same time, by working cooperatively with KANDEN SOS, which is a home security business company, we will investigate developing security services for the elderly and other new services.



Services for corporate customers

Kansai Electric Power promotes a variety of services, providing optimal energy systems and management methods designed to meet individual customer needs and help reduce energy consumption, costs, and CO₂ emissions.

Examples of adopting utility services

Kintetsu Real Estate Co., Ltd. adopted the utility services of Kanden Energy Solution Co., Inc. (Kenes) for the Abeno Harukas super-high rise multifunction building, which stands 300 m above ground and had its grand opening in March 2014.

Expert energy technicians from Kenes are stationed at the building around-the-clock, managing facilities with different energy quality demands, including a department store, offices, a hotel and a museum. Moreover, we are continuously realizing energy, cost and CO₂ reductions by monitoring energy use conditions in real time and utilizing the collected data in operation and maintenance. In this way, we have been told that customers are able to focus their business resources, including essential personnel, on their primary businesses by entrusting work related to energy management to Kenes.

Examples of adopting utility services

Examples of services for corporate customers	
Electricity Usage Notification Service (Kansai Electric Power Company)	In addition to making it possible to see electricity use conditions on a website, we also distribute information and email newsletters that help customers solve problems.
Utility Service (Kanden Energy Solution Co., Inc.)	This service enables customers to outsource facility management and even makes initial financing unnecessary for them by providing comprehensive services from fund-raising and design to installation and maintenance administration for utility facilities related to energy, including power receiving equipment, air-conditioning and heating equipment and boilers.
Assistive vehicle leasing service (The Kanden L & A Co., Ltd.)	We provide total support for assistive vehicles, including leasing, sales, repair and upgrading.
Business place security (KANDEN Security of Society, Inc.)	This service preserves customer safety 24 hours a day 365 days a year by rapidly detecting abnormalities, including intruders and fires, and rushing staff to the site.
Comprehensive building management (Kanden Facilities Co., Ltd.)	These services provide facility environments that are safe and secure and contribute to increasing property values through, for example, the daily maintenance management and cleaning of buildings and facilities, security, environmental hygiene and energy management.

The group companies that provide the services are indicated inside parentheses.



Inspecting the utility facilities of the Abeno Harukas building

