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

Maintaining power supplies with the same 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.



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 accident 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 accidents and for swift recovery in the event an accident does occur. Equally important, systematic renovation is in progress for aging facilities.



Facilities configuration based on S+3E ^D

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.



Training the personnel who support safe and stable supply functions $^{m D}$

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.



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.

D Power generation facility capacity ratio by power source



215 people

Specialist technicians with

specialized skills Individuals with high levels of

recognized

technical ability and

outstanding leadership

qualities are selected and

(As of the end of May 2016)

Efforts Based on Our CSR Action Principles

4

First new 500 kV substation built in about 16 years

We are currently proceeding the construction work of new 500 kV Kongo Substation. Kongo had been used as 275 kV Switching Station, but we decided to upgrade it into 500 kV substation to improve system reliability for our trunk grid in Osaka Prefecture and the region south of it. This is the first time that we have built a new 500 kV substation in about 16 years. While we actively try to reduce costs by incorporating new technologies and others, we continue to provide power steadily with safety as our first priority.



Construction of a new 500 kV substation

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Replacing degraded distribution facilities based on data analyses

A large amount of distribution facilities that were constructed during the period of rapid economic growth are being degraded by aging, and it is a big issue for us to replace them efficiently according to each degradation condition. To address the issue, we are researching to estimate residual performance of each degraded facility by breaking test for removed facilities such as concrete utility poles through test. Also we accumulate and analyze results of inspecting facilities. Based on these analyses, we plan to replace degraded facilities at the appropriate time.



Breaking test for removed utility pole by bending

Joint rescue training with professional fire-fighting team ^①

In December 2014, an accident occurred in which a paraglider was caught on transmission line and the paraglider operator was suspended above the ground. Fortunately, the rescue activity by means of a ladder truck owned by professional fire-fighting rescue team was possible at that time. But it is easy to imagine that a rescue activity which may happen at the location that a ladder truck cannot access is problem for us. For this reason, we conducted joint rescue training with fire-fighting team and experienced rescuing people on steel towers and conductors without using a ladder truck.



Rescue training on a steel tower

Flexible and stable fuel procurement

Strengthening our LNG procurement systems through cooperation with major nationals resource companies*

In May 2015, we signed an LNG sales contract (portfolio contract) and cooperation agreement for the LNG business with BP Singapore Pte. Limited. For approximately 23 years from 2015, we will receive an LNG supply of up to about 13 million tons from the LNG projects owned by the BP Group in locations around the world. In addition, we will endeavor to maintain procurement that is stable, economically advantageous, timely and in proper quantities through the optimal application of LNG trading and shipping.



1

Joint trainings on steel towers with fire departments

(Total number for the entire company)

*Major nationals resource companies are involved in the exploration, extraction and sales of oil, LNG and other natural resources.

4

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

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 a major 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

In preparation for rapid initial response to the occurrence of disasters, we are enhancing our response systems, including the designation of individuals who would arrive at the workplace early and night watches by supervisors. We are seeking to improve employee skills in responding to disasters and increasing their awareness of disaster preparation. We are conducting role-playing style trainings not only for the occurrence of a major Nankai Trough earthquake but also considering cases such as the occurrence of a nuclear power disaster at the same time. In addition, we are having them practice assembling by actually walking and riding bicycles, supposing public transportation is unavailable.

Strengthening collaborative ties with disaster response entities

If a major Nankai Trough earthquake or other large-scale wide-area disaster should occur, there are limits to what our company alone could do to respond. For this reason, along with cooperating with other power companies as a matter of course, we will also cooperate with governments, for example by participating in meetings of local disaster response departments. Working together, we will do everything that we can to restore power as quickly as possible. Furthermore, we have made agreements so that mutual cooperation with the Chubu Region Ground Self-Defense Forces and Kure District Maritime Self-Defense Forces can be conducted smoothly when various types of disasters occur. We are holding related meetings and trainings at least once a year.

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

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.



Corporatewide comprehensive emergency response drills



Training to load high-voltage generator vehicles on an air-cushioned landing craft of Maritime Self-Defense Force

Emergency System for Communicating with Relevant Authorities



We dispatched support to Kyushu Electric Power to help restore power after the Kumamoto earthquakes

A series of earthquakes occurred in Kumamoto immediately after the full liberalization of the retail market for power began in April 2016. In response to an appeal that our company received from the Kyushu Electric Power Company, between the 16th and 28th of that month, we sent a total of 256 personnel along with 39 vehicles, including high-voltage generator vehicles, and conducted emergency power transmission to power distribution lines that experienced outages.

Moreover, based on the Fire Services Act and guidelines from the Fire and Disaster Management Agency (October 3, 2013), we constructed temporary storage facilities for fuels with which we have unique expertise, and we cooperated in building structures to supply fuel stably using high-voltage generator vehicles.



Our high-voltage generator vehicles supplying emergency powe

2

Number of participants in corporatewide comprehensive emergency response drills







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

Initiatives prioritizing safety at nuclear power plants

Ensuring stable energy supply through diversity

Japan's energy self-sufficiency rate is only around 5%; 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 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

Renewable energy 12%	- 0%	About 22–24%
LNG 46%		Nuclear power About 22–20%
Coal 31%		About 27%
		About 26%
Oil 11%		About 3%
Fiscal 2014 (Power supply composition after the Great East Japan Earthquake)		Fiscal 2030 ideal power composition (Decided July 2015)

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

Securing stable energy through the 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.



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" last year, 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.

Conceptual Rendering of Recyclable Fuel Storage Center



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Periodic inspections

Reevaluation

every

conducted

Once every

13 months

(Periodic safety reviews)

vears

When technical evaluations

30th year

for managing aging

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.

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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 defensein-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.

Aging measures and extension of operation ¹

Nuclear power plants undergo periodic inspections once every 13 months and measures such as

equipment replacement are carried out with a view toward long-term operation. In addition, a reassessment (periodic safety review) is conducted every 10 years, and after the 30th year a power plant undergoes a technical evaluation to manage aging. According to the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, revised in 2012, the operational life of a nuclear power plant is 40 years. However, the act stipulates that upon authorization of the Nuclear Regulatory Authority, this period can be extended one time only for another 20 years, pending special inspections of the reactor pressure vessel and containment vessel and other apparatus.

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.



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 addressed "safety-first" business activities as the top priority. Our Management Philosophy, which was formulated in March 2016, put thought of "safety-first" on axis of management and reiterated that "safety-first" is most important value.

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

On August 9, 2004, the accident, rupture of secondary system piping, has 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 implemented recurrence-prevention measures strictly, with a firm determination that we shall prevent a recurrence of the accident.

On every August 9th, which is set as "Safety Vow Day", every employee observes a moment of silence and refers to the Conduct Card in which personal declaration for safety is written down.



President Yagi observes a moment of silence in front of the Safety Vow Memorial (August 2015)

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 of 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 will 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 of 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 for the further permeation of our safety philosophy and conduct guidelines in the Kansai Electric Power Group Safe Action Charter.* This is not limited to just within our corporate 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 118.



Undertaking a safety activity in unity with a subcontractor

Providing services as a consolidated group

Aiming to be "the best partner in daily life and in business"

As a universal provider of electricity and other forms of energy, as well as various information and communications services, and with a lineup of businesses providing amenity services in daily life, the Kansai Electric Power Group meets diverse customer needs, providing comprehensive solutions to individual customers and communities. In order to have customers choose our group and to realize further growth in the new energy era, we will continue to focus on being "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

In addition to introducing the e-Smart 10 new rate options and expanding rate options such as eo DENKI and au Denki (Powered by Kansai Electric Power), we are advancing efforts in terms of both price and service, including the provision of services by group companies. We are offering information and communications services as well as services that support daily life such as a Run-to-You Electricity Service that dispatches help to customers when they have trouble related to electricity, Hapi e-Kurashi Support that combines responding to daily life problems with member benefit services, and Hapi e-Points that can be accumulated by using Hapi e-Miruden.

(See page 16 for details about each set of lifestyle support services.)

Service improvement and service creation to reflect the input of customers **①**

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

When electrical trouble occurs at home, want Kansai Electric Power to take care of it!

Our Run-to-You Electricity Service that sends professionals to help customers started April 2016

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Run-to-You Electricity Service

Service improvement example

When changing how electricity is paid for, "filling out and mailing an application is a nuisance" and "ordering the blank forms and matching personal seals takes time."

Added online application

functions (when changing to payment by credit card or bank transfer)





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.

ิด Number of reform cases based on customer feedback

6/

We are currently investigating reform measures for 64 cases as of the end of May 2016

Surveys related to household electrical repairs and investigations



Efforts Based on Our CSR Action Principles

Reducing residential customer data fees and mobile phone expenses through the expansion of the "mineo" service

K-Opticom Corp. is expanding the mineo mobile telephone service throughout Japan with "what is necessary only as necessary" as the concept.

In order to allow customers to use their smartphones economically, they can choose just what they need in terms of data transmission, voice calls and smartphone devices. Furthermore, this service also allows them to continue using a smartphone that they already have (docomo or au models supported).

K-Opticom is also enhancing its in-shop support in order to encourage even more customers to use mineo. For example, at the "mineo showroom" in GRAND FRONT OSAKA, they are able to process applications in store as well as consult with customers before purchase and set up new smartphone devices, for example. Previously, support had only been offered online and through call centers.



On the third floor of the GRAND FRONT OSAKA North Building in front of JR Osaka Station

Real estate development uses group's comprehensive strength Cielia Tower Senri Chuo

Kanden Realty & Development Co., Ltd., which was formed through the merger of KANDEN FUDOSAN Co., Ltd. and MID Urban Development Co., Ltd., began sales of the Cielia Tower Senri Chuo (52 floors) in May 2016. This tower condominium is the flagship project being undertaken by this company. It offers communication services from K-Opticom Corp., security by KANDEN Security of Society, Inc., concierge services by Classy Family Concierge Kansai Co., Ltd. and building management by Kanden Community Co., Ltd. Moreover, our group is providing its comprehensive abilities to provide services for the linked commercial facility. For example, Kanden Property Management Co., Ltd. is responsible for tenant operation and management and Kanden Facilities Co., Ltd. is responsible for facilities management.

Moreover, the same condominium building is one part of the Yomiuri Bunka Center Senri-Chuo Rebuilding Project, which is being advanced jointly by

the Yomiuri Shimbun, Osaka Headquarters and the Yomiuri Telecasting Corporation. Construction began in March 2016 and completion is expected in the spring of 2019.

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Cielia Tower Senri Chuo (rendering)

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 CO_2 emissions.

Utility service in use ¹

Abeno Harukas, Japan's tallest building, belonging to Kintetsu Corporation, celebrated its grand opening in March 2014. The building employs Kenes' Utility Service.

An expert energy technician from Kenes is stationed at the building around-the-clock to comprehensively manage department stores, offices and other businesses that have different energy use conditions. 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, by entrusting work related to energy management to Kenes, customers are able to focus their business resources, including essential personnel, on their primary businesses.

Examples of services for corporate customers In addition to making it possible to see electricity use conditions on a website, **Electricity Usage** Notification Service we also distribute information and (Kansai Electric Power Company) email newsletters that help customers solve problems. 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 **Utility Service** (Kanden Energy Solution Co., Inc.) installation and maintenance administration for utility facilities related to energy, including power receiving equipment, air-conditioning and heating equipment and boilers Instead of customers purchasing electrical equipment and facilities. ePack Leasing Service including air-conditioning, (Kanden L&A Co. Ltd.) water-heating, kitchen and power-receiving equipment, we purchase it and lease it to them. Assistive vehicle We provide total support for assistive leasing service vehicles, including leasing, sales, repair and upgrading. (Kanden I & A Co. I td.) This service preserves customer safety **Mechanical security** 24 hours a day 365 days a year by business rapidly detecting abnormalities (KANDEN Security of including intruders and fires, and rushing staff to the site. Society, Inc.)

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

1 Utility service in use



Inspecting the utility facilities of the Abeno Harukas building