

# COMPANY PROFILE 2011

THE KANSAI  
ELECTRIC POWER CO., INC.

# Doing our utmost to fulfill our mission of “serving customers and communities”

## Message from the President

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

Since that earthquake, the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Station has significantly shaken people's faith in the electric power industry, and in nuclear power in particular. We who do business in the electric power industry are deeply cognizant of the grave nature of this situation.

Due to delays in the remobilization of nuclear plants that have been undergoing inspections nationwide, the electric power supply situation this winter is expected to prove challenging, compelling us to ask once again, as we did this summer, for our customers' cooperation in trying to conserve electricity. Again I must apologize for the considerable inconvenience and trouble that this causes for everyone.

We are doing everything in our power to ensure the safety of our nuclear power business, and are taking all possible steps to ensure the stability of our electric power supply. We are doing our utmost to restore people's faith in the electric power industry and in nuclear power in particular, one step at a time.

The Kansai Electric Power Group is utilizing its combined strength to continue fulfilling its unwavering mission of “serving customers and communities.” We ask for your continued support and cooperation going forward.

  
President and Director  
*Makoto Yagi*



# In response to the TEPCO Fukushima Kansai Electric Power its power to develop safety

## The Great East Japan Earthquake struck on March 11, 2011. An accident that should never have been allowed to happen soon followed.

At 2:46 p.m. on March 11, 2011, a magnitude 9.0 earthquake with its epicenter off the Sanriku coast rocked Japan. The earthquake and subsequent tsunami caused massive and widespread damage across eastern Japan. At TEPCO's Fukushima Daiichi Nuclear Power Station, the nuclear reactors automatically shut down in response to the quake, but the facility lost its cooling capabilities as a result of the earthquake and tsunami, resulting in a nuclear accident that should never be allowed to happen.

## Kansai Electric Power immediately began taking concrete safety measures against earthquakes and tsunamis at its nuclear power plants.

Kansai Electric Power confirmed the soundness of essential safety equipment at its nuclear power plants, immediately conducting startup tests of the emergency diesel generators that are kept on hand for cooling reactors, and confirming the indicated values on each piece of equipment. We quickly began taking all possible steps to ensure the safety of our nuclear facilities. We also worked to collect information about the accident.

## We are formulating and implementing an Execution Plan for Safety Assurance Measures based on the causes of the accident as they gradually become known.

After the earthquake, the nuclear reactors at the Fukushima Daiichi Nuclear Power Station automatically shut down, as they were designed to do, but the earthquake disrupted access to the external electrical power supply, while the tsunami rendered the emergency backup power supply unusable. The result was a total loss of AC power. The seawater pumps used for cooling reactors were also destroyed by the tsunami, leaving the reactors unable to be cooled for a long period and creating a serious situation that included major damage to the nuclear fuel.

In response to these accidents, Kansai Electric Power is implementing safety assurance measures that consist of ensuring access to electric power, which is needed for monitoring nuclear reactors and other equipment, ensuring access to water for cooling reactors and other equipment, and taking flood management measures for preventing the flooding of important equipment. We will continue implementing additional measures to improve safety as we move forward.

To monitor reactors and other equipment  
**Ensure access to electric power**

To cool reactors and other equipment  
**Ensure access to water**

To prevent the flooding of important equipment  
**Take flood management measures**

# Daiichi Nuclear Power Station accident, is doing everything in assurance measures.

## Ensure access to electric power

### ■ Infrastructural Measures

Immediately after the accident, we deployed vehicle-mounted generators to our nuclear power plants. At the end of September 2011, we installed air cooling emergency power generators with higher voltage source capacity than vehicle-mounted generators on elevated ground so that they would not be affected by a tsunami.



A total of 21 air cooling emergency power generators have been installed on elevated ground at our nuclear power plants

### ■ Procedural Measures

We have developed systems and manuals for ensuring that the deployed power source can be quickly connected at the location where it is needed, and we have conducted drills to test those systems.



Conducting a drill to connect equipment to a vehicle-mounted generator

### ■ Additional Measures

We are planning to install additional permanent emergency power sources at our nuclear power plants (to be handled over the medium to long term).



## Ensure access to water

### ■ Infrastructural Measures

We immediately deployed fire pumps that can feed seawater or other water needed for cooling nuclear reactors and the spent fuel pools. We also deployed mobile engine-driven seawater pumps.



A total of 70 engine-driven seawater pumps were installed at our nuclear power plants

### ■ Procedural Measures

We have developed systems and manuals for ensuring that the deployed fire pumps can be quickly installed at the locations where they are needed, and we have conducted drills to test those systems.



Conducting a pump installation drill

### ■ Additional Measures

We installed a total of three diesel-powered large-capacity pumps at our power plants.



## Take flood management measures

### ■ Infrastructural Measures

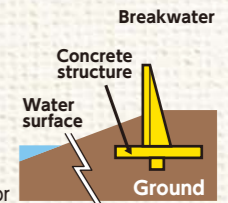
To prevent tsunami-related flooding of the equipment necessary for supplying power to the central control room or the equipment needed for cooling reactors, we have properly sealed the building doors and other openings.

### ■ Additional Measures

We will gradually replace current doors with watertight doors, and we plan to install breakwaters at the Mihama and Takahama Power Stations to mitigate the force of a tsunami. We also are planning to raise the height of the existing breakwater at Ohi Power Station (to be handled over the medium to long term).



Watertight door



To implement these measures, we have formulated an Execution Plan for Safety Assurance Measures in which we refer to measures that must be taken immediately as "Emergency Measures" and measures that will be implemented to further improve the public trust in our business as "Urgent Measures."

In response to a request from Fukui Prefecture and instructions by the Ministry of Economy, Trade and Industry (METI), we also added "Additional Measures as Further Safety Assurance Measures." Later, as instructed by METI, we compiled and reported information on the implementation status of five "Measures for Responding to Severe Accidents." We are promptly implementing safety assurance measures and will move quickly and carefully to take any other necessary measures as soon as new information becomes available.

# Our entire company commitment to fulfilling of ensuring a stable

# remains united in its our mission power supply.

We strive to respond flexibly to unforeseen events and have been working to ensure the stability of our power supply capabilities, with particular emphasis on our thermal power and hydropower generation capabilities.

When the Great East Japan Earthquake struck, Kansai Electric Power's Mihama Power Station Unit 1 (340 MW) and Takahama Power Station Unit 1 (826 MW) were shut down for regular maintenance. Since the quake, while our operational nuclear plants have undergone regular inspections as planned, it has become unclear when those plants that had been undergoing regular inspections will be reactivated. Thus, we have been promoting power supply assurance measures centered around our thermal power and hydropower plants. We have postponed some construction work that had initially been planned for one of our pumped-storage hydropower plants (Okutataragi Power Station), and shortened the regular inspection period on our thermal power plants. We also quickly restored operations at our Maizuru Power Station Unit 1 (900 MW) and Himeji No. 2 Power Station Unit 5 (600 MW). We have also been working to procure fuel by fully mobilizing our own coal carriers. Beyond this, we have been taking such steps as increasing electric power purchases from customers that have their own power generation equipment and power producers and suppliers (PPS), power trading with other power companies, and making preparations to increase the output of our thermal power plants.



Tataragi Dam at Okutataragi Power Station



Operation at Maizuru Power Station was swiftly restored

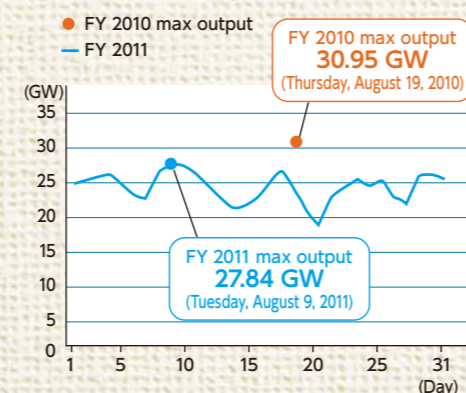


Our coal carrier, the MAIZURU DAIKOKU

## Reducing peak summer demand to avoid large-scale power interruptions—customers were asked to cut use by 15%.

Kansai Electric Power had been promoting various supply assurance measures, but with temperatures expected to rise sharply in July, right in the heart of summer, there were concerns that electricity demand might outpace supply. On June 10, 2011, we asked customers to cut their electricity use by approx. 15% during peak hours, from 9:00 a.m. to 8:00 p.m. (and particularly in households from 1:00 to 4:00 p.m.) on weekdays from July 1 to September 22 (excluding August 12-16). This was a deeply troubling decision for Kansai Electric Power, whose mission is to ensure a stable supply of electric power, and we are deeply sorry for the inconvenience and trouble we caused our customers by making this request.

■ Trends in maximum power output in August



Summer power interruptions were avoided thanks to the support of our customers.

Kansai Electric Power asked its customers to conserve energy using many different opportunities and means of communication, including direct visits, direct mail, fliers, TV commercials, and newspaper ads. We posted an "Electricity Forecast" on our website to provide customers with electric power demand information on a daily basis, and worked hard to respond to customer inquiries by setting up a toll-free number for energy conservation questions. As a result, thanks to the cooperation of so many of our customers and other members of the public, and to summer temperatures that were lower this year than last, we were able to avoid power interruptions. Once again, we would like to extend our sincerest apologies for the inconvenience and trouble that this caused, and to express our heartfelt gratitude for the dedicated support we have received.



A banner hanging on one of our office buildings

Electricity Forecast provides information on electricity supply and use



TV commercials and fliers were used to promote energy conservation



## In spite of these challenges, Kansai Electric Power remains committed to ensuring a stable power supply.

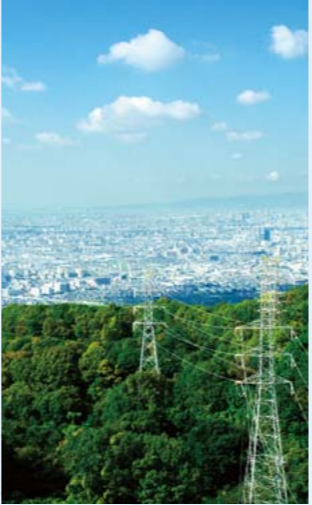
To ensure a stable power supply this winter, the Kansai Electric Power Group has been doing its utmost to firm up its supply capabilities. However, with no projected reactivation date for our currently idle nuclear power plants, we have asked our customers to cooperate in efforts to continue conserving energy through the winter. We sincerely apologize for having to extend the request we made this summer, thereby causing additional inconvenience and trouble for our customers. Everyone at Kansai Electric Power is working together to ensure that we will be able to fulfill our highest mission: to ensure a safe and stable supply of electric power.

# Contents

Message from the President / Our mission.....	1
Responding to the Great East Japan Earthquake / Efforts to ensure the safety of our nuclear power stations.....	3
Responding to the Great East Japan Earthquake / Efforts to ensure a stable power supply.....	5

**We are taking various measures to ensure the uninterrupted delivery of electricity. Ensuring a stable power supply..... 9**


• From the power station to the customer (From procurement of fuel to delivery of power / The world's highest levels of quality).....	11
• The best mix of power sources (Energy security / Optimal combination of energy sources).....	13
• Stable procurement of fuels (Securing uranium / Procurement of thermal-power fuel).....	14
• Nuclear power generation (Safety as the top priority / Preparing for severe accidents / Tsunami sediment surveys / Stress tests).....	15
• Thermal power generation (Backup power / Maizuru Power Station Unit 2 / Combined-cycle method).....	17
• Hydroelectric power generation (Role of hydroelectric power generation / Effective use of existing facilities / Variable-speed pumped-storage generation).....	18
• Renewable energy (Introducing renewable energy / Solar power generation / River maintenance flow discharge / Biomass fuel).....	19
• From load dispatching to power distribution (Central Load Dispatch Center / Power transmission network / Substations / Power distribution).....	21



**We offer solutions for everyday living and the operation of society.**

**For everyday living and society..... 23**


- Lifestyle and business solutions (Your trusted partner in energy and living / EcoCute and IH cooktops / Totally electric home plus / K-Opticom and Kanden SOS / Energy diagnosis / Utility service..... 25



**We are promoting forward-looking businesses to build a better society.**

**Low-carbon society / Research and development / Overseas operations ..... 27**


- Low-carbon society (Kansai e-Eco Strategy / Low-carbon electric power / Kanden Smart Grid / Necessity of Kanden Smart Grid / Visualization of energy consumption patterns)... 29
- Research and development (R&D themes / Storage batteries / Carbon separation and recovery)..... 31
- Overseas operations (Objectives / Stable supply of electric power overseas / Personnel training)..... 32



**We support community development by working closely with local residents.**


**Hand-in-hand with the community..... 33**

- Activities as a member of the local community (Classical music concerts / Cleanup activities / Kanden Collabo Art 21 / Urban revitalization / Mobile classrooms / PR facilities / KidZania Koshien Theme Park)..... 35



**Corporate data**

- Overview / Electric power supply facilities / Electricity sales volume and system peak demand / System map..... 37
- Main business locations / Main sales offices / Main affiliated companies..... 38

 **This symbol indicates Eco Topics, specific measures Kansai Electric Power is taking toward the achievement of a low-carbon society.**

## Ensuring a stable power supply

We are taking various measures to ensure the uninterrupted delivery of electricity.

Electricity from power plants crosses  
over mountains and through cities.  
There must be no disruptions.  
Our lines extend a total length of 148,110 km.

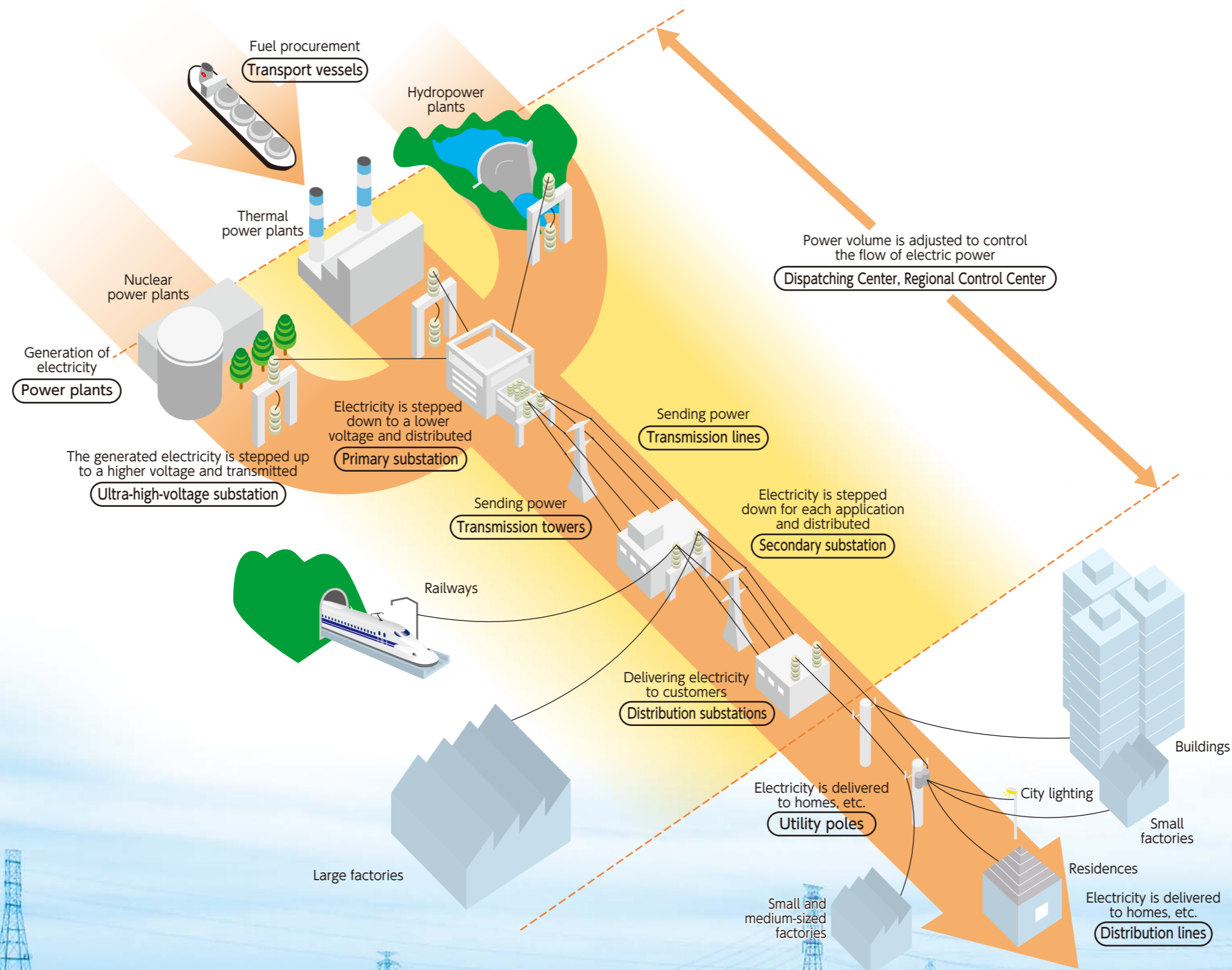
# A stable power supply is ensured only when everything is connected.

We conscientiously execute our responsibilities, from procurement of fuel to delivery of power to homes.

A stable supply of electric power to our customers—this is the promise that Kansai Electric Power Group employees work every day to fulfill. Procuring fuel supplies with a long-term viewpoint in order to support the efficiency of our operations is a part of that pledge. So is our determination to deliver that energy without waste or inefficiency. With safety as our top priority, the Group is working tirelessly to fulfill its responsibilities in each of these roles, providing customers with a stable supply of electricity.

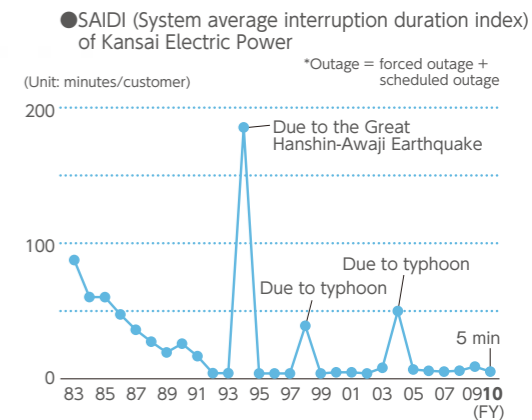


● Maintenance of transmission lines



We will continue to uphold the world's highest levels of quality.

Kansai Electric Power's mission is to provide a safe, reliable, high-quality supply of electric power. To accomplish this mission, we maintain all of the facilities and equipment that connect our power plants to our customers' businesses and households in the best possible condition at all times. In addition to inspecting, replacing and maintaining equipment at regular intervals, Kansai Electric Power applies its expertise in IT to develop and apply leading-edge remote monitoring and control systems, ensuring customers of the world's highest levels of quality in electricity supply.

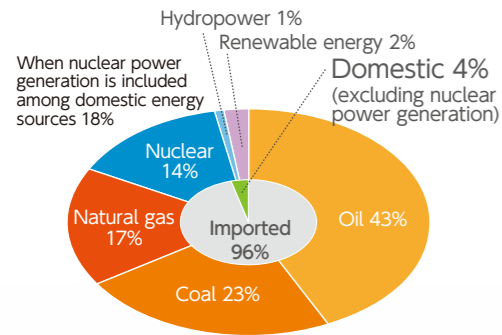


# The key to achieving the “best mix” is to strike an optimal balance between a wide range of energy sources.

## Energy security is important for ensuring a stable supply of electric power.

For Japan, a country whose energy self-sufficiency rate is only 4% and which must depend on imports from overseas, energy security (i.e. stable access to energy resources) is becoming an increasingly important issue in terms of ensuring a stable supply of electric power to users.

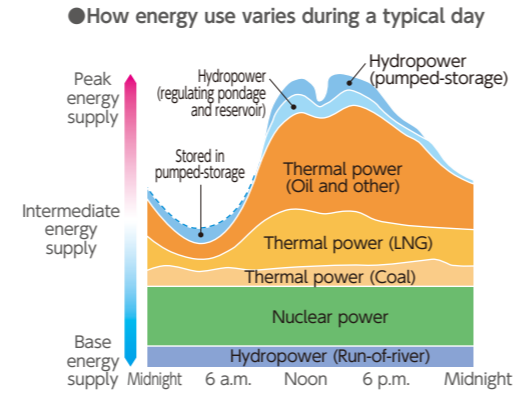
### ● Import-dependent primary energy sources in Japan



Source: Energy Balances of OECD Countries (2010 Edition)  
Notes:  
1. Domestic oil, coal and natural gas account for approximately 1% of the total for these sources.  
2. Totals may not tally due to rounding.

## We're striving to establish the “best mix” of power sources, combining nuclear power, thermal power, hydropower, and other power formats in an optimal balance.

To ensure stable access to energy resources, Kansai Electric Power is developing a mix of energy sources, avoiding excessive dependence on any single source. In other words, we're striving to establish the “best mix” of power sources, combining nuclear power, thermal power, hydropower, and other power formats in an optimal balance while comprehensively considering issues of energy security, economic efficiency and environmental performance. In Kansai Electric Power's “best mix” of energy sources, nuclear power forms the base, with thermal power providing supplementary energy at peak times.



# To ensure a stable energy supply, we're working to secure a stable supply of energy resources.

## We participate in uranium mining to secure a long-term, stable supply of nuclear fuel.

Given the increase in energy demand in the developing nations since around 2000, combined with the intensification of the global warming problem, nuclear power generation has increasingly come to be regarded as a promising source of energy. However, favorable attitudes toward nuclear power have come under greater scrutiny since the Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Station accident. While some countries have announced that they are moving away from nuclear power generation, others are promoting the introduction or expansion of their nuclear programs. The future of the environment surrounding uranium resources is far from certain. Considering future priorities related to achieving a low-carbon society and managing risks related to resource price increases and resource shortages, Kansai Electric Power remains intent on maintaining stable access to nuclear fuel, and is participating in several uranium resource procurement projects. In 2006, we participated in a mine development project in Kazakhstan, and since 2008 we have been participating in an exploration and feasibility study in Australia through the Japan Australia Uranium Resources Development Co., Ltd. (funded by Kansai Electric Power).



● Developing a uranium mine in Australia



● The LNG EBISU, Kansai Electric Power's LNG carrier

## We're working to ensure a stable supply of thermal-power fuel by strengthening the supply chain.

Kansai Electric Power is participating in the Pluto LNG Project in Australia, and has concluded a long-term contract to purchase liquefied natural gas (LNG) from this project. We regard this project as one of our main sources of LNG from 2012 onward, and consider the revenue from the project as an additional revenue for the Group. Also, to strengthen our shipping capabilities, Kansai Electric Power has placed into service its first company-owned carrier, the LNG EBISU. We have also introduced a fleet of three coal carriers, the MAIZURU DAIKOKU, MAIZURU BENTEN, and MAIZURU BISHAMON, to accommodate our increased need for coal since the start-up of Maizuru Power Station Unit 2 in 2010. By playing an active role in every stage from production, to transport and receiving, the Kansai Electric Power Group is strengthening its supply chain and ensuring a long-term stable supply of thermal fuels.





## To ensure energy security, we are operating our nuclear power plants with safety as the top priority.

### Safety is the top priority in our nuclear power plant operations.

In response to the Fukushima Daiichi Nuclear Power Station accident, Kansai Electric Power is implementing safety assurance measures that consist of ensuring access to electric power, which is needed for monitoring nuclear reactors and other equipment, ensuring access to water for cooling reactors and other equipment, and taking flood management measures for preventing the flooding of important equipment. We are also working to ensure that we are prepared for severe accidents, including worst-case events.



● Air cooling emergency power generators

### Kansai Electric Power is prepared to respond in the event of a severe accident at its nuclear power plants.

#### Conducting measures to prevent a hydrogen explosion from damaging facilities

- To manage hydrogen, establish procedures for maintaining operations by supplying power from power source vehicles to hydrogen combustion equipment (already installed) (Completed for Ohi Units 1 and 2 in June 2011)
- To prevent the accumulation of hydrogen, establish procedures for maintaining operations by supplying power to exhaust fans that blow outside (Completed for plants other than Ohi Units 1 and 2 in June 2011)
- Install equipment that reduces hydrogen concentrations without the need for electricity (static catalytic hydrogen recombiners) (Installation planned at plants other than Ohi Units 1 and 2 in FY 2012 or 2013)

#### Maintaining the working environment in the central control room

- Establish procedures to supply power from backup power generators already deployed to air conditioning systems that ventilate the central control room and use filters to remove radioactive materials in the air even if all power is lost (Completed in June 2011)

#### Securing means of communication within plants in emergencies

- Have mobile, dry-cell communication devices, etc. at the ready to provide a way for the field operators to communicate with the central con-

trol room during total power failure or flooding (Completed June 2011)

- Have handheld lights and headlamps at the ready (Completed April 2011)
- Install private branch exchange system for internal lines, satellite communication equipment, and other devices with enhanced functions at administrative buildings with seismic isolation (Completion planned for around FY 2017)

#### Securing protective clothing, etc. for high levels of radioactivity and establish system for radiation control management

- Have protective clothing for high levels of radioactivity at the ready at each plant (Completed June 2011)



● Protective clothing for high radiation levels

- Confirm that supplies like personal dose meters will be shared between nuclear power station operators as necessary (Completed June 2011)

- Established framework that allows people other than radiation control management workers to help these workers in emergencies (Completed June 2011)

#### Deploying heavy equipment to remove debris

- Deploy one backhoe-bulldozer to each plant in order to remove debris from plant premises after a tsunami (Completed April 2011; replaced with larger models in June)



● The backhoe-bulldozer at the Mihama Power Station

## To ensure a stable energy supply, we're working to secure a stable supply of energy resources.

### We have begun conducting tsunami sediment surveys along the shore of Wakasa Bay.

Based on the opinions of the Fukui Prefecture Safety Commission and to collect information on the effects of a tsunami in Wakasa Bay, three companies, Kansai Electric Power, the Japan Atomic Power Company, and the Japan Atomic Energy Agency have begun a joint project to survey the tsunami sediment there. Researchers will perform boring surveys at nine inland and water surface locations at the Mikatagoko Lakes and the surrounding area. The survey will involve the analysis and evaluation of collected samples, and is expected to take about one year. We will have the survey results evaluated by academic experts,



● An inland boring survey

and if any new information is obtained, it will be incorporated into our tsunami assessments and countermeasures, as needed.

### We have confirmed the validity of our Safety Assurance Measures through stress tests conducted at Ohi Power Station Units 3 and 4.

Kansai Electric Power has been implementing Safety Assurance Measures at its nuclear power plants in response to the Fukushima Daiichi Nuclear Power Station accident, and we were able to quantitatively assess their effectiveness by conducting stress tests at Ohi Power Station Units 3 and 4. We submitted the results of these tests to the national government on October 28 and Novem-

ber 17, 2011. We have confirmed that our key safety-related facilities and equipment have an adequate safety tolerance for phenomena (such as earthquakes, tsunamis) that go beyond those for which they were designed, and that their safety tolerance has been improved by the Safety Assurance Measures implemented thus far. The content of the report is expected to be examined by the Nuclear and Industrial Safety Agency (NISA) and confirmed by the Nuclear Safety Commission of Japan and other authorities. Kansai Electric Power will pay careful attention to the results.

#### Primary Evaluation Results Summary (Evaluation related to reactor fuel)

	After the Emergency Safety Measures (as of October 1, 2011)	Before the Emergency Safety Measures	Evaluation index	
Earthquake	1.8 times (equivalent to 1.260 gal)	Approx. 3% improvement	1.75 times (equivalent to 1.225 gal)	Comparison of the earthquake motion that would cut access to any means of cooling the fuel due to equipment damage caused by an earthquake against the standard earthquake motion <sup>3</sup>
Tsunami	Approx. 4.0 times (11.4 m)	Approx. 145% improvement	Approx. 1.6 times (4.65m)	Comparison of the tsunami height that would cut access to any means of cooling the fuel due to equipment damage caused by a tsunami, against the expected tsunami height
Total loss of AC Power <sup>1</sup>	Approx. 16 days after the event	Approx. 76-fold improvement	Approx. 5 hours after the event	Time until there would be no access, without outside support, to any means of cooling the fuel
Loss of ultimate heat sink <sup>2</sup>	Approx. 16 days after the event	Approx. 2.6-fold improvement	Approx. 6 days after the event	

<sup>1</sup> Total loss of AC power: Loss of power from external electric power sources and emergency diesel generators; the power station is completely without electric power.

<sup>2</sup> Loss of ultimate heat sink: The ability to obtain seawater to cool the fuel has been lost.

<sup>3</sup> Standard earthquake motion: Amount of shaking that would occur during the largest earthquake predicted in the area around a nuclear power plant. Gal is a unit of acceleration that expresses the strength of shaking of the ground and buildings caused by an earthquake.

## Responding flexibly to fluctuations in electric power demand, thermal power supports a safe and stable power supply.

Thermal power is capable of responding flexibly to fluctuations in electric power demand, and plays an essential role in serving as a backup power supply to renewable energies.

A key aspect of thermal power is its ability to allow a flexible response to fluctuations in electric power demand, enabling Kansai Electric Power to increase or decrease the number of operating units or adjust the output of each unit, as needed. Because of this advantage, thermal power is expected to serve as a backup to renewable energies, including solar power and wind power which are easily affected by weather conditions and thus pose challenges in terms of maintaining a balance between the demand and supply of electric power. Thermal power generation continues to play a vital role in enabling a flexible response to fluctuations in power demand.



● Combined-cycle power plant (Sakaiko Power Station)

Unit 2 of Kansai Electric Power's only coal-fired power station is now operational.



● Maizuru Power Station

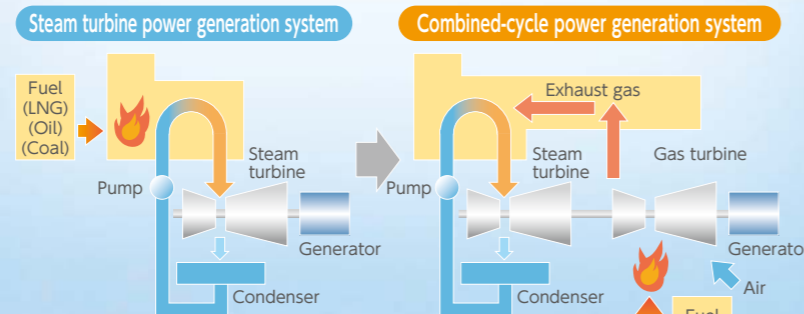
Maizuru Power Station is Kansai Electric Power's only coal-fired power station. Kansai Electric Power uses LNG, oil, and coal as fuel for its thermal power plants. Because coal is more plentiful and widely distributed than natural gas and oil, it has great advantages in terms of stable and low-cost procurement. Unit 1 of this power station went online in 2004, while Unit 2 commenced commercial operations in 2010 doubling the power station's output to 1.8 GW.

Replacing existing systems with combined-cycle power generation systems that emit less CO<sub>2</sub>.

Conventional thermal power plants burn fuel to turn water into steam, which drives a steam turbine and generates electric power. On the other hand, combined-cycle power plants burn fuel to produce a high-temperature combustion gas which drives a gas turbine, and then exhaust gas from this process is used to generate steam that drives a steam turbine. With this system, fuel is saved and CO<sub>2</sub> emissions are reduced. Kansai Electric Power is in the process of replacing its old conventional thermal power plants with more efficient combined-cycle plants. At Sakaiko Power Station, replacement work has been completed and all five units commenced commercial operations in 2010. At Himeji No. 2 Power Station, Unit 1 is undergoing replacement work and is scheduled to commence commercial operations in 2013, and all six units are scheduled to be operational by 2015. The thermal efficiency\* of Himeji No. 2 Power Station will be improved from about 42% to about 60%, putting it among the most efficient in the world and resulting in a CO<sub>2</sub> emissions reduction of about 30%.

\*Thermal efficiency is expressed on an LHV basis.

● Mechanism of combined-cycle power generation (rendering)



## Efficiently harnessing the power of nature, hydropower contributes to a clean and stable electric power supply.

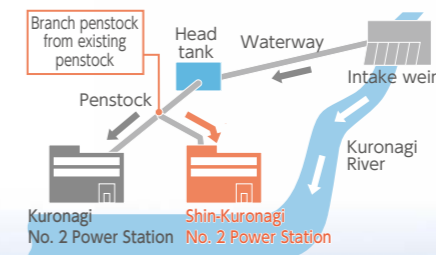
With a history of more than a century, hydropower is an important part of our stable energy supply.

Hydropower harnesses the energy generated when water falls from a high place to a low one, and emits no CO<sub>2</sub> during generation. Keage Power Station, Japan's first hydropower plant for commercial power generation, went online in 1891, and contributed to the modernization of Kyoto. The year 1963 saw the completion of the Kurobegawa No. 4 Power Station, which played an essential role in overcoming the serious power shortages that gripped postwar Japan. These two historic plants are among the 150 hydropower plants currently maintained by Kansai Electric Power, which account for approximately 10% of overall power output and play a vital role in ensuring a stable energy supply.

Shin-Kuronagi No. 2 Power Station will effectively use the Kurobegawa river system's abundant waters.

Shin-Kuronagi No. 2 Power Station is Kansai Electric Power's eleventh hydropower station and the first new hydropower construction project in 12 years within the Kurobegawa river system. Standing alongside the existing Kuronagi No. 2 Power Station, it will take advantage of existing facilities such as the headrace and head tanks for an estimated maximum output of 1,900 kW, generating approximately 12,000 MWh each year. This will allow an annual CO<sub>2</sub> emissions reduction of around 3,600 tons, helping to promote the move toward low-carbon-process electricity.

● Shin-Kuronagi No. 2 Power Station



Okutataragi Power Station's pumped-storage hydropower contributes to power supply efficiency and stability.

Pumped-storage hydropower involves using leftover nighttime electric power to pump water back up to the top of a dam, where it is then released to generate electricity during daytime hours of high demand. This method is used to respond flexibly and accurately to the continually fluctuating demand for electric power. In addition, at Okutataragi Power Station Units 1 and 2, we are planning to introduce a variable-speed pumped-storage hydropower system able to respond flexibly to fluctuations in electric power demand during the process of pumping water at night. This facilitates a more precise control of demand and supply during the night and the following day, allowing us to achieve an even more stable supply of electric power.



● Tataragi Dam at the Okutataragi Power Station

# Renewable energies like solar and wind power are also vital to the development of low-carbon electricity.

**Kansai Electric Power is actively introducing renewable energies to realize a low-carbon society.**

Renewable energies are essential alternatives to oil and other fossil fuel energy resources. However, although renewable technologies have been developed to the point that they are being used in real-world practical applications, renewable energies have yet to be sufficiently introduced due to their high cost. The achievement of low-carbon electricity is going to require the active adoption of renewable energies, including not only solar and wind power, but also biomass and small-scale hydropower.\* With steps such as construction of a large-scale solar power station and co-combustion of biomass and coal at our thermal power plants, Kansai Electric Power is actively promoting the adoption of renewable energies.

\*Facilities with output of 1 MW or less

**Kansai Electric Power is independently developing renewable energy projects to realize a low-carbon society.**

Kansai Electric Power built the Sakai Solar Power Station along the waterfront in Sakai City, Osaka Prefecture. It is expected to have the highest solar power output capacity in Japan at 10 MW and to reduce CO<sub>2</sub> emissions by 4,000 tons a year. The facility began partial operations in October 2010, and launched full commercial operations in September 2011. As output from solar power generation is characterized by large and rapid fluctuations due to changes in solar radiation, a massive inflow of solar power into the power grid may affect the quality and stable supply of electricity in the future. To verify the technical impact of large-scale penetration of solar power into the power grid in the future, ten electric power companies, including Kansai Electric Power, plan to develop mega solar power plants in about thirty

locations nationwide with a total power output of approximately 140 MW. Kansai Electric Power will identify fluctuations in output and voltage resulting from the operation of the Sakai Solar Power Station, and will examine various issues using data on solar power output and solar radiation measured throughout the Kansai region. The knowledge obtained through this endeavor will be widely publicized and used to facilitate the wider promotion of solar power generation. In addition, Kanden Energy Development Co., Inc., a wholly-owned subsidiary of Kansai Electric Power, has embarked on a wind power project with a rated power output of 12 MW in the northern part of Awaji City, Hyogo Prefecture.

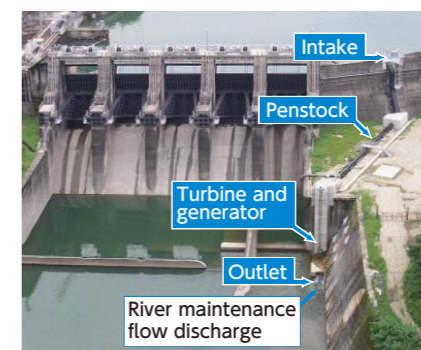


● Sakai Solar Power Station

**Building the Okuwa-Nojiri Power Station, Kansai Electric Power's first hydropower plant to use river maintenance flow discharge.**

Kansai Electric Power built its first hydropower plant (max. output 490 kW) using river maintenance flow discharge\* and previously unused drop at the Yomikaki Dam in Okuwa-mura, Kiso-gun, Nagano Prefecture. It became operational in June 2011. This is expected to reduce CO<sub>2</sub> emissions by 1,300 tons/year.

\*The flow of water discharged to protect the landscape and natural environment downstream from dams.



● Overview of the Okuwa-Nojiri Power Station

**Initiatives in using biomass fuel reduce CO<sub>2</sub> emissions.**



● Wood pellets

In June 2008, Kansai Electric Power began using wood pellets, a biomass fuel, at Unit 1 of coal-fired thermal plant Maizuru Power Station. Mixing biomass fuel with coal before burning reduces coal consumption, and the estimated annual reduction of CO<sub>2</sub> emissions is about 90 kt.



# A 24/7 monitoring system and advanced IT technology secure the power distribution system that covers the Kansai area.

The Central Load Dispatch Center responds instantly to fluctuations in demand and gives precise instructions.

Demand for electricity fluctuates by the second. Our Central Load Dispatch Center monitors demand 24 hours a day, 7 days a week, and issues instructions to our plants regarding the required volume of output. The Center plays a vital role in maintaining a high-quality power supply, working with the regional grid operation center and system operation centers throughout the Kansai region to adjust voltage and frequency as necessary. It also employs the latest information technology to exert control over the intricate network of power transmission lines that spread throughout the region, monitoring such things as repair activities, equipment failures and lightning strikes, and selecting the most appropriate transmission routes accordingly. These efforts are all part of our efforts to ensure that our customers enjoy a stable supply of high-quality electricity.

Our high-voltage power transmission network carries vast amounts of electricity.



●Transmission lines

Our plants generate electricity at voltages of between several thousand and 20 kV, but to minimize power transmission loss, the electricity is boosted to voltages between 275 and 500 kV. This electricity is transmitted from our plants to the communities we serve along power lines supported by huge steel towers erected in the mountains. The transmission lines extend beyond the Kansai region, connecting to countrywide networks stretching from Hokkaido to Kyushu, and the ability to transmit electricity to and from areas served by other power companies helps to ensure a reliable supply of electric power.

Substations are used to lower the voltage of electricity in accordance with customer needs.

Electricity generated at our plants travels over transmission lines to primary substations, which lower the voltage to between 154 and 77 kV. It is delivered at these voltage levels to customers that require large amounts of electricity, such as railways and large factories. Electricity for other customers is sent to secondary substations, which further lower the voltage to between 77 and 22 kV. This process of reducing the voltage in stages allows the electricity to be transmitted more efficiently, minimizing power loss due to transmission over long distances.



●Primary substation

Power distribution is the final stage in delivering electricity to customers' homes.

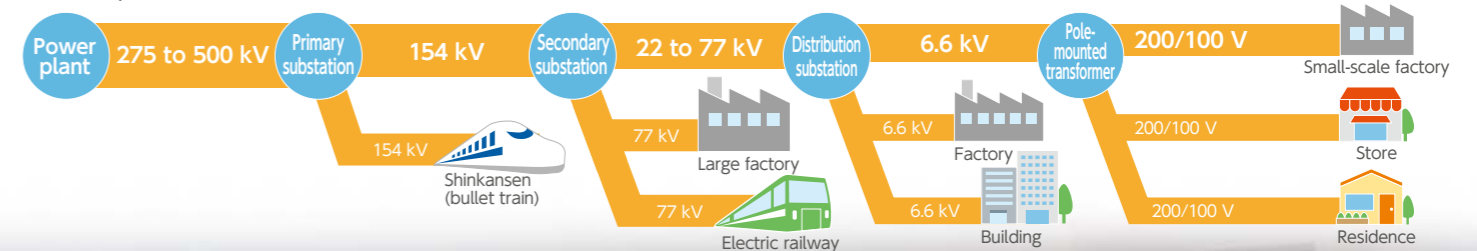
Electricity with its voltage lowered to between 77 and 22 kV is sent to distribution substations, where the voltage is further lowered to 6,600 V and fed to the power lines on poles that extend to all of our service areas. This process is called "power distribution." Electricity at this voltage is delivered to tall buildings and medium-size factories, while electricity for home users is further lowered to 100 or 200 V by pole transformers. Electricity follows a long journey before reaching customers at speeds of some 300,000 km per second. It takes a fraction of an instant for electricity to travel from the power plants to users who depend on it for their everyday lives.



●Distribution line maintenance



●Electricity route



■The Central Load Dispatch Center, responsible for giving operating instructions to all power plants.

## For everyday living and society

We offer solutions for everyday living and the operation of society.

To create a dynamic society where everyone can enjoy a comfortable lifestyle, we will continue taking steps toward a better tomorrow.

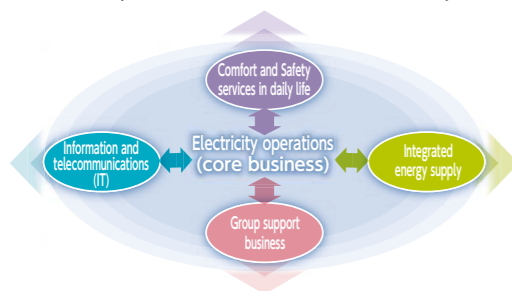


# We help individuals and businesses any time, any place, with total solutions offered through our Group services.

## The Kansai Electric Power Group aims to be 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) services and lineup of businesses 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 to further integrate our electricity and other Group operations to provide total solutions. 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.

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



## Secure, comfortable, economical, and environmentally friendly living is delivered through totally electric homes.

By promoting safe and comfortable "totally electric homes" incorporating energy-saving, environmentally friendly, economically efficient EcoCute electric water heaters, we are providing customers with a "HAPI-e" (happy electricity) lifestyle. Effectively using air-source heat, an approved renewable energy, and utilizing heat pump technology, which produces more than three times the amount of electricity used, the EcoCute reduces the amount of energy needed to heat water and vastly reduces CO2 emissions and heating costs. We are also working to promote the widespread adoption of IH cooktops, which can be used safely and easily by the entire family.



●EcoCute

## Adding solar power and energy conservation to totally electric living.

Totally electric homes allow residents to lead safe and comfortable lifestyles while drastically reducing utility bills and CO2 emissions. Adding items such as solar power and electric vehicles, highly compatible with the "totally electric" model, to the core concept of the totally electric home allows residents to lead a more environmentally friendly and economical lifestyle. Kansai Electric Power is helping customers boost their standard of living with the new concept of "totally electric home plus."



●Solar panels installed on the roof



●Electric vehicle adopted by Kansai Electric Power

## Supporting various aspects of life from telecommunications to security.



The Kansai Electric Power Group is working to bring greater comfort and convenience to our customers' lives. Group company K-Opticom Corp. offers a package of three services—Internet, phone, and television—under the eo-HIKARI brand, as well as eo-Mobile, a mobile broadband service, by utilizing a fiber optic network that covers the entire Kansai region. The eo-HIKARI service has been rated number one in multiple customer satisfaction surveys. Other Group company Kanden Security of Society (Kanden SOS) offers home security services that keep its customers safe and secure 24 hours a day, 365 days a year.

## Diagnostic services to improve energy efficiency at large facilities.

The corporate sector consumes an enormous amount of energy, and its ability to use energy efficiently is critical. Bringing together technologies and know-how from throughout the Group, Kansai Electric Power provides diagnostic services for equipment and facilities, help companies understand their specific energy needs and how to meet those needs in the most efficient way possible. In order to respond quickly to various customer needs, we have also developed our own original measurement and analysis tools capable of measuring a wide variety of data simultaneously.



●Kansai Electric Power's energy-equipment diagnostic services

## Providing customers with the best energy usage solutions.

The Kansai Electric Power Group not only provides electricity, but also works to provide optimum solutions and meet customer energy usage needs. Kanden Energy Solution (Kenes) meets customers' needs to conserve energy, reduce costs, and reduce CO2 primarily with its utility service, through which the company aims to help customers with their energy supply equipment needs, ranging from design and construction to operation and maintenance.

●Services offered by Kenes



Low-carbon society /  
Research and development /  
Overseas operations

We are promoting forward-looking businesses  
to build a better society.

The path ahead has yet to be opened,  
but a path will be created by the company  
bold enough to bravely forge ahead.  
We are that company.

# Tackling various challenges as we strive to achieve a low-carbon society.

Adopting a long-term perspective, Kansai Electric Power is continuing to promote low-carbon efforts in the electric power industry.

Kansai Electric Power is developing initiatives aimed at achieving a sustainable low-carbon society. Based on our medium- to long-term Kansai e-Eco Strategy for promoting the creation of low-carbon communities, we are striving



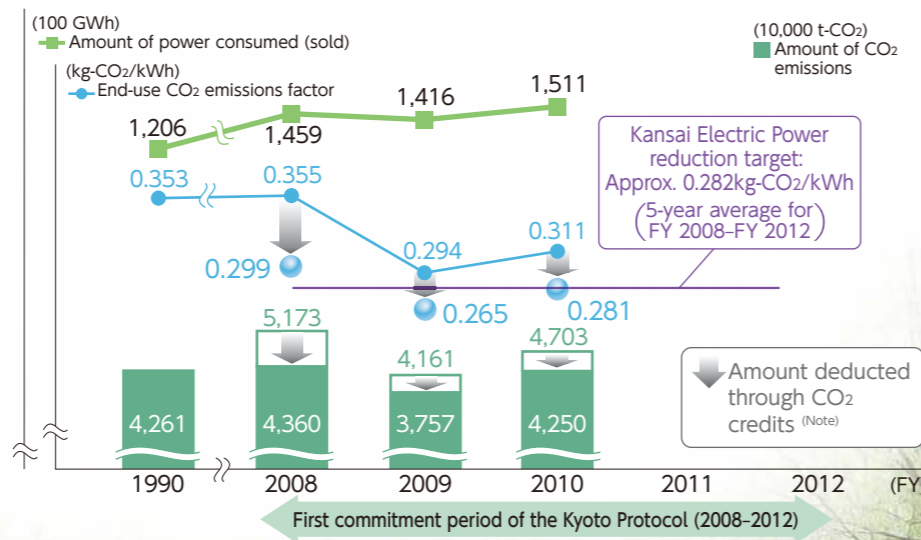
to achieve a low-carbon society through both supply-side and demand-side initiatives and are aiming to construct the Kanden Smart Grid. Beyond this, we are promoting activities abroad and the development of advanced technologies that will contribute to the fight against global warming, and are actively striving to be a main player in the low-carbon era.

We are working hard on a variety of efforts to achieve the delivery of low-carbon electric power to our customers.

Kansai Electric Power is promoting efforts to reduce the carbon emissions of the electric power we deliver to customers through a variety of initiatives. The CO<sub>2</sub> emissions factor in FY 2010 was 0.281 kg-CO<sub>2</sub>/kWh.\*

\*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.

Change in CO<sub>2</sub> emissions factor, etc.



Note: The values for FY 2005 onward are calculated based on the calculation, reporting and publication system for greenhouse-gas emission volumes, as mandated in the Law Concerning the Promotion of the Measures to Cope with Global Warming. Note that under this system, CO<sub>2</sub> reduction values such as green power certifications are not taken into consideration.

Achieving next-generation high-quality electric power—the Kanden Smart Grid.

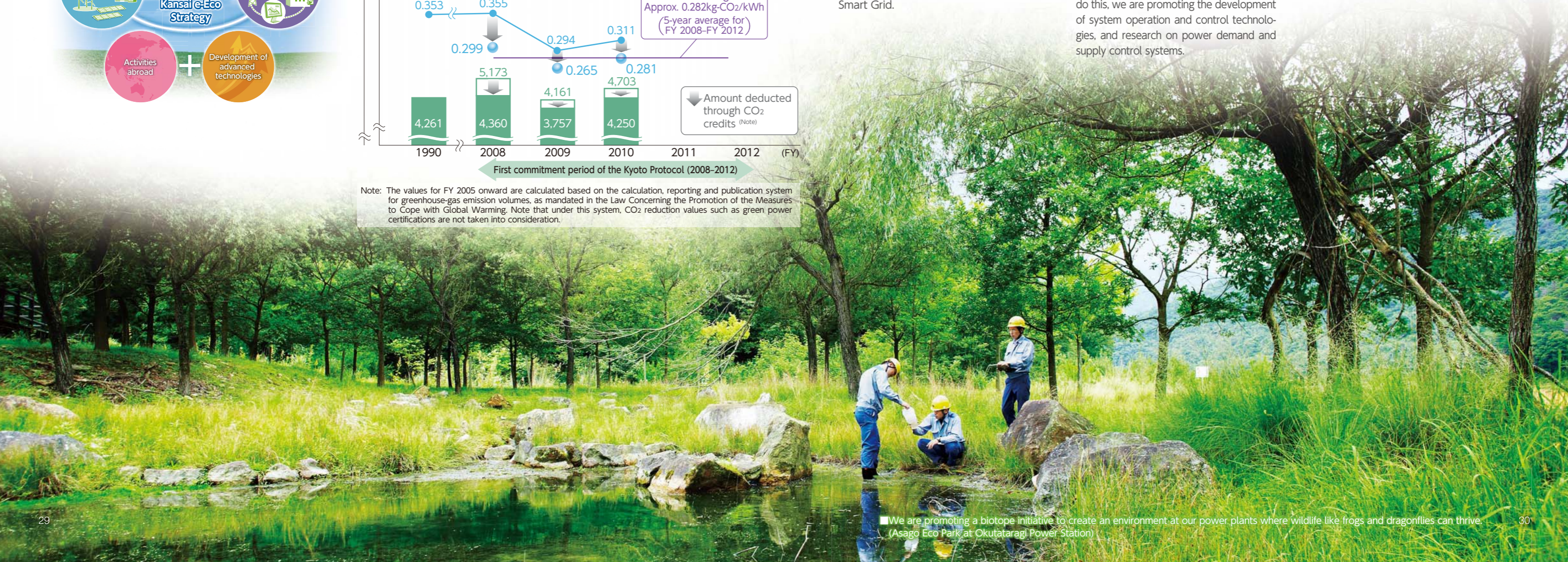
“Smart grids” are the next-generation network of energy transmission systems that will be essential to the achievement of a low-carbon society and further service improvements. The Kansai Electric Power Group has defined “smart grids” as systems that use new technologies, such as IT and storage battery technologies, to achieve a low-carbon society and improve convenience for customers without compromising the stability of the underlying electric power system, in an effort to achieve a high-efficiency, high-quality, and highly reliable electricity distribution system. This is what we call the Kanden Smart Grid.

The Kanden Smart Grid offers a stable supply of lower-carbon electric power.

Should renewable energy sources with highly variant output, such as solar power, be used to supply power on a large-scale or intensive basis, they could potentially have an adverse effect on electric power quality (in terms of such factors as voltage and frequency). To ensure that such effects do not impact its customers, Kansai Electric Power is promoting the concept of the Kanden Smart Grid for supplying lower-carbon electric power. This concept includes plans for maintaining and upgrading electric power equipment and electricity distribution facilities that play a role in coordinating demand and supply from sources like thermal power and hydropower plants. To do this, we are promoting the development of system operation and control technologies, and research on power demand and supply control systems.

The Kanden Smart Grid offers services better tailored to customer needs.

One of the high-quality services achieved by the Kanden Smart Grid is support for our customers’ need to conserve energy. We are promoting the introduction of a New Metering System and the “visualization of energy consumption patterns” to enable our customers to use energy with a real awareness of their need to conserve energy, reduce costs, and reduce CO<sub>2</sub>. This allows us to carefully measure our customers’ energy use and to be more precise in conducting energy consultations.



We are promoting a biotope initiative to create an environment at our power plants where wildlife like frogs and dragonflies can thrive. (Asago Eco Park at Okutataragi Power Station)



For a sustainable society and lifestyle, we are putting our sophisticated technology and wealth of experience to work in building a bright future.

**Our R&D themes: a stable supply of electricity and the achievement of a low-carbon society.**

As global environmental issues become ever more pressing, a new feed-in tariff (fixed price purchasing system) for renewable energies is expected to be launched in July 2012, and the adoption of renewable energies, such as photovoltaic power and wind power, is expected to accelerate. However, the large-scale introduction of renewable energies whose output is weather dependent will make it more difficult to maintain electricity quality as defined by such factors as voltage and frequency. To address this issue, we are developing a wide range of technologies aimed at reducing CO<sub>2</sub> emissions and introducing renewable energies while never sacrificing the stable supply of electricity.

**ECO**  
To introduce large-scale photovoltaic power generation, we have begun research on electricity supply and demand control systems using batteries.

Photovoltaic power generation presents a model of power generation that does not produce CO<sub>2</sub> during the generation process and that uses a natural energy that is not in danger of depletion. However, power output can vary significantly and suddenly depending on solar radiation and other natural conditions, posing issues for its viability as a stable energy source. Therefore, we are participating in an effort by all electric power companies in Japan to install solar radiation meters and thermometers nationwide. These devices will collect data at one-second intervals, allowing us to collect detailed information about photovoltaic power generation output variances. As part of an independent project, we have installed a supply and demand control system that uses nickel metal hydride batteries at the Ishizugawa Substation to which the Sakai Solar Power Station is connected, to manage output fluctuations in photovoltaic power generation, and we are conducting research on supply and demand control systems for ensuring the stability of the electric power grid. We intend to publicize the results of this research and contribute to the wider adoption of renewable energy in Japan.

**ECO**  
We are developing proprietary technology to capture and recover CO<sub>2</sub> during power generation.

In 1990, anticipating the coming demands for CO<sub>2</sub> emissions reduction, Kansai Electric Power launched a project to develop technologies for capturing and recovering CO<sub>2</sub> from the exhaust gas discharged by thermal power plants. We teamed up with Mitsubishi Heavy Industries, Ltd. on a joint project to build an experimental plant at our Nanko Power Station, and developed KS-1<sup>®</sup>, a CO<sub>2</sub>-absorbing solution capable of recovering more than 90% of the CO<sub>2</sub> from exhaust gas. The superior performance of KS-1<sup>®</sup> has earned it acclaim as the world's best CO<sub>2</sub>-absorbing solution, and the product is in use at chemical plants throughout the world. We are currently working to promote its eventual adoption at thermal power plants, where direct recovery of CO<sub>2</sub> from exhaust gas will play a part in preventing global warming. \*KS-1 is a registered trademark in Japan.



●CO<sub>2</sub> recovery pilot plant at Nanko Power Station

**We are actively pursuing overseas operations based on our experience accumulated in Japan.**

Based on the technological capabilities and expertise that we have gained as a Japanese electric power company, Kansai Electric Power is undertaking activities to contribute to a stable supply of electricity overseas. We view the world as a new field for our activities, which include contributing to energy conservation and CO<sub>2</sub> emissions reduction on a global scale through transfer of technology and cultivation of human resources in developing countries. The knowledge gained through these activities can then be put to use in our domestic electricity business.



●Senoko Power Station in Singapore

**Kansai Electric Power's overseas businesses contribute to the stable supply of electric power overseas.**



●Repowering work at the Senoko Power Station

Senoko Energy is the largest producer of thermal power in Singapore. We began investing in the company in September 2008 and have provided various types of technological support. Today, we are working on a repowering project to convert the existing power generation equipment at the Senoko Power Station to a high-efficiency natural gas-fired combined-cycle system. We have sent engineers to the plant and are striving to improve the plant's process management and quality. We are also promoting efforts to transfer technologies to the plant to prevent the degradation of its piping. In addition, we also conduct an annual educational program to provide technical training in Japan to operators and maintenance personnel at the San Roque Hydropower Station in the Philippines.

**Our technology transfer and personnel training help mitigate environmental burdens in developing countries.**

As part of our activities under the Global Sustainable Electricity Partnership (formerly the e8), Kansai Electric Power is participating in many projects involving support for developing nations and the promotion of environmental initiatives, including projects to provide guidance to a micro-hydro project in Bhutan and a solar power project in Tuvalu. From March 2005 to November 2010, we held eight workshops for electric power company engineers from the Pacific Island nations, training personnel in renewable energies and energy conservation.



●Technology transfer workshops

## Hand-in-hand with the community

We support community development by working closely with local residents.

We work with local communities in thinking about energy and the environment, and work with them to help educate the next generation.



## Kansai Electric Power is doing its best to help, for the future of local communities.

Hosting classical music concerts around Kansai is one of the ways we support the cultural life of the region.



●FY 2010 Invitation to the Opera, *The Barber of Seville*

Since 1988, Kansai Electric Power has held classical music concerts, sponsored by either our head office or branch offices. Events such as our Kanden Classical Special "Invitation to the Opera" program give people an opportunity to enjoy classical music in their own communities.

Playing a committed role in cleanup activities in cooperation with the community.

Kansai Electric Power works hand-in-hand with neighborhood associations on clean-up activities covering a wide area, including the vicinity of our business locations, shorelines and riverbanks, tourist destinations, and social welfare facilities.



●Using an aerial work truck to clean streetlights (Nara)

Holding a Kansai-wide exhibition of works by artists with disabilities.



●Kanden Collabo Art 21

Since 2001, Kansai Electric Power has held exhibitions of work by artists with disabilities in support of their activities. Out of nearly 1,000 submissions, 30 are carefully selected and exhibited at ten venues. Many venues to the exhibitions have said they came away deeply inspired by the fascinating artwork.

We actively participate in community development activities, contributing to urban revitalization.



●The Nakanoshima neighborhood in Osaka

Kansai Electric Power has been making both infrastructural (hard) and organizational (soft) contributions to community development activities especially in central Osaka. These include our activities on Nakanoshima Island, where our head office is located. Kansai Electric Power serves as the secretariat of the Round Table on the Future of Nakanoshima, whose members are mainly landowner companies in the Nakanoshima area. The association promotes community development through activities that include distributing information on its website, joining area clean-up campaigns, and symposia. Kansai Electric Power will continue making active contributions to community development efforts in the Kansai region.

We think about energy and environment with children in our mobile classrooms.

It is very important for children to think about energy and the environment surrounding us since they will become the leaders of the future. Thus, Kansai Electric Power offers what are called "mobile classrooms" at elementary and junior high schools. Mobile classrooms are classes arranged and conducted by employees of Kansai Electric Power where children can enjoy learning about energy and the environment through experiments and hands-on activities. In FY 2010, the approximately 1,200 mobile classrooms that were organized were attended by about 53,000 children.



●Over 1,000 mobile classrooms a year are held as part of our popular program.

Our PR facilities help people find out more about electricity and energy.



●The PR facility "El Cool Sakaiko"

Kansai Electric Power has established public facilities for PR activities at our power plants and other locations so that people can learn more about electricity, energy, and the environment, and so that we can enhance communications with local residents. In October 2010, we renovated our PR facility at the Sakaiko Power Station (Nishi-ku, Sakai City), "El Cool Sakaiko." This facility uses models and videos to explain the combined-cycle power generation model, which offers greatly improved thermal efficiency, outlining our efforts to achieve a low-carbon society.

Electric Power Company Pavilion at KidZania Koshien enables children to experience simulated power maintenance work.

At KidZania Koshien, a theme park that opened in March 2009 in Nishinomiya (Hyogo Prefecture), children can experience various jobs and learn more about how society works. Kansai Electric Power sponsors one of the pavilions, where children can participate in an activity that simulates restoring power to a community after a blackout. Through this experience, they can learn how important electric power is and how rewarding it feels to know that we are fulfilling such an important responsibility as we carry out this work.



●Inside the Electric Power Company Pavilion

### Overview

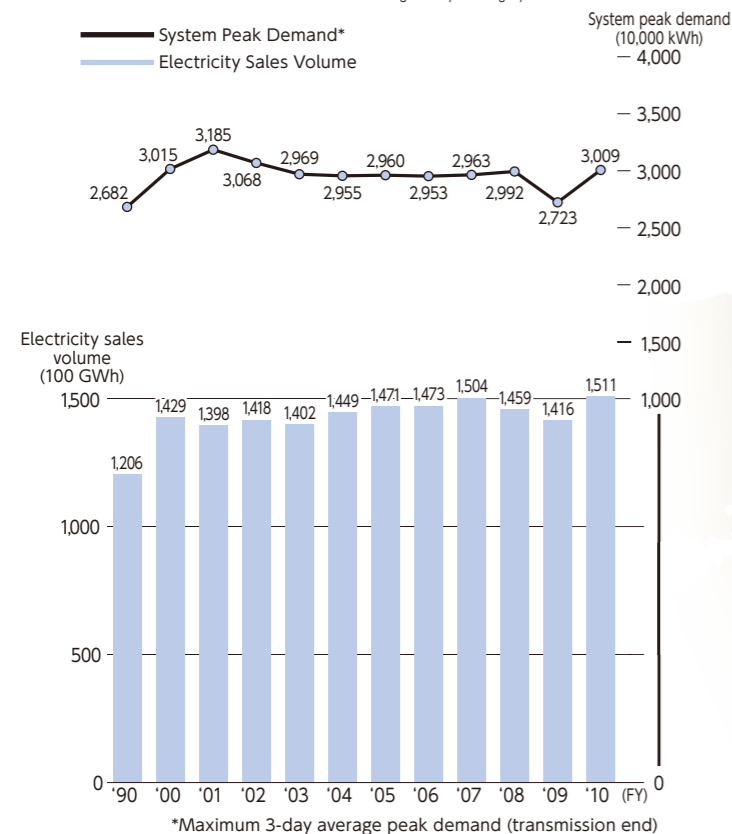
(as of March 31, 2011)

<b>Date of establishment</b>	May 1, 1951
<b>Paid-in capital</b>	¥489,300 million
<b>Number of common shares issued</b>	938,730,000
<b>Total assets</b>	¥6,457,500 million (consolidated: ¥7,310,100 million)
<b>Number of employees</b>	22,207 (based on employee registry)
<b>Electricity sales volume</b>	Residential: 52,316 million kWh Commercial and industrial: 98,762 million kWh Total: 151,078 million kWh
<b>Number of customers</b>	Residential: 12,390 thousand Commercial and industrial: 1,090 thousand Total: 13,480 thousand
<b>Gross system electricity amount</b>	164,600 million kWh
<b>System peak demand</b>	33,060 MW (August 2, 2001) (Highest daily value at generating end)
<b>Supply area</b>	Entirety of Osaka, Kyoto, Nara, Shiga and Wakayama prefectures, greater part of Hyogo prefecture, and portions of Mie, Gifu and Fukui prefectures
<b>Operating revenues</b>	¥2,475,900 million (consolidated: ¥2,769,700 million)
<b>Ordinary income</b>	¥202,400 million (consolidated: ¥237,900 million)
<b>Net income</b>	¥103,300 million (consolidated: ¥123,100 million)

Note: Figures are rounded, so the sum of individual figures may differ slightly from the indicated total. Monetary amounts are rounded down to the nearest 1 million yen.

### Electricity sales volume and system peak demand

Note: Figures are rounded, so the sum of individual figures may differ slightly from the indicated total.



### Electric power supply facilities

(as of March 31, 2011)

<b>Power plants</b>	Hydropower plants	149 locations
	Thermal power plants	12 locations
	Nuclear power plants	3 locations
	Renewable energy plants	1 location
<b>Transmission lines (length)</b>	Overhead	14,085 km
	Underground	4,384 km
<b>Distribution lines (length)</b>	Overhead	123,445 km
	Underground	6,196 km
<b>Substations</b>	1,579 locations	152,510 thousand kVA

\*Expressed in units of 10,000 kW due to rounding. The output of the Sakai Solar Power Station when it was only partially operational was 6,300 kW (as of March 31, 2011).

Note: Figures are rounded, so the sum of individual figures may differ slightly from the indicated total.

### System map

(as of March 31, 2011)



### Main business locations

<b>Head Office</b>	3-6-16 Nakanoshima, Kita-ku, Osaka 530-8270, Japan TEL: 06-6441-8821	<b>Kobe Branch</b>	6-2-1 Kano-cho, Chuo-ku, Kobe, Hyogo 650-0001, Japan TEL: 078-391-7211
<b>Nuclear Power Division</b>	8 Yokota, Goichi 13, Mihama-cho, Mikata-gun, Fukui 919-1141, Japan TEL: 0770-32-3500	<b>Nara Branch</b>	48 Omori-cho, Nara 630-8548, Japan TEL: 0742-27-1237
<b>Mihama Power Station</b>	5-3 Kawasakayama, Nyu 66, Mihama-cho, Mikata-gun, Fukui 919-1201, Japan TEL: 0770-39-1111	<b>Shiga Branch</b>	4-1-51 Nionohama, Otsu, Shiga 520-8570, Japan TEL: 077-522-2626
<b>Takahama Power Station</b>	1 Tanoura, Takahama-cho, Ohi-gun, Fukui 919-2392, Japan TEL: 0770-76-1221	<b>Wakayama Branch</b>	40 Okayama-cho, Wakayama 640-8145, Japan TEL: 073-422-4150
<b>Ohi Power Station</b>	1-1 Aza Yoshimi, 1 Oshima, Ohi-cho, Ohi-gun, Fukui 919-2101, Japan TEL: 0770-77-1131	<b>Himeji Branch</b>	117 Junishomae-cho, Himeji, Hyogo 670-8577, Japan TEL: 079-225-3221
<b>Fossil Power Engineering Center</b>	Sumitomo Nakanoshima Bldg. 12F, 3-2-18 Nakanoshima, Kita-ku, Osaka 530-0005, Japan TEL: 06-6441-8821	<b>Tokyo Branch</b>	Fukokuseimei Building, 2-2-2, Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan TEL: 03-3591-9261
<b>Information Technology and Telecommunications Center</b>	3-6-16 Nakanoshima, Kita-ku, Osaka 530-8270, Japan TEL: 06-6441-8821	<b>Tokai Branch</b>	Takaoka Park Bldg., 2-2-1 Higashi-sakura, Higashi-ku, Nagoya, Aichi 461-8540, Japan TEL: 052-931-1521
<b>Paris Office</b>	3, rue Scribe, Paris 75009, France TEL: +33-(0)1 43 12 81 40	<b>Hokuriku Branch</b>	1-2-13 Higashi-denjigatamachi, Toyama 930-8513, Japan TEL: 076-432-6111
<b>Purchasing Center</b>	Sumitomo Fudosan Nishi-Umeda Building 5F, 5-1-7 Fukushima, Fukushima-ku, Osaka 553-0003, Japan TEL: 06-4796-8860	<b>Fossil Power Administration Center</b>	Sumitomo Nakanoshima Bldg. 12F, 3-2-18 Nakanoshima, Kita-ku, Osaka 530-0005, Japan TEL: 06-6459-0433
<b>Power Engineering R&amp;D Center</b>	3-11-20 Nakoji, Amagasaki, Hyogo 661-0974, Japan TEL: 06-6491-0221	<b>Sakaiko Power Station</b>	1-2 Chikko Shinmachi, Nishi-ku, Sakai, Osaka 592-8331, Japan TEL: 072-241-9781
<b>Energy Use R&amp;D Center</b>	3-11-20 Nakoji, Amagasaki, Hyogo 661-0974, Japan TEL: 06-6491-0222	<b>Tanagawa No. 2 Power Station</b>	1905-12 Tanagawa Tanigawa, Misaki-cho, Sennan-gun, Osaka 599-0311, Japan TEL: 0724-95-0661
<b>Center for Civil Engineering and Architecture</b>	Sumitomo Fudosan Nishi-Umeda Building 4F, 5-1-7 Fukushima, Fukushima-ku, Osaka 553-0003, Japan TEL: 06-4796-8853	<b>Nanko Power Station</b>	7-3-8 Nanko Minami, Suminoe-ku, Osaka 559-0032, Japan TEL: 06-6613-0101
<b>Kansai Electric Power Human Resources Development Center</b>	2-5-5 Shimizu, Ibaraki, Osaka 567-0059, Japan TEL: 072-641-1691	<b>Kainan Power Station</b>	260-96 Funao-Aza Nakahama, Kainan, Wakayama 642-0001, Japan TEL: 073-482-6153
<b>Power Systems Engineering Center</b>	Nakanoshima Center Building, 6-2-27 Nakanoshima, Kita-ku, Osaka 530-0005, Japan TEL: 06-6441-8831	<b>Gobo Power Station</b>	1-3 Aza Tomishima, Minami Shioya, Shioya-cho, Gobo, Wakayama 644-0024, Japan TEL: 0738-23-2811
<b>Kansai Denryoku Hospital</b>	2-1-7 Fukushima, Fukushima-ku, Osaka 553-0003, Japan TEL: 06-6458-5821	<b>Himeji No. 1 Power Station</b>	3058-1 Nakashima, Shikama-ku, Himeji, Hyogo 672-8530, Japan TEL: 079-235-0551
<b>Kuroyon Administrative Office</b>	2010-17 Taira, Omachi, Nagano 398-0001, Japan TEL: 0261-22-0800	<b>Himeji No. 2 Power Station</b>	Megatokiwa-cho, Shikama-ku, Himeji, Hyogo 672-8034, Japan TEL: 079-245-1651
<b>Wakayama Power Station Construction Office</b>	3-6-16 Nakanoshima, Kita-ku, Osaka 530-8270, Japan TEL: 06-6441-8821	<b>Aioi Power Station</b>	5315-46 Aza Yanagiyama, Aioi, Aioi, Hyogo 678-0041, Japan TEL: 0791-23-5063
<b>Himeji No. 2 Power Station Construction Office</b>	Megatokiwa-cho, Shikama-ku, Himeji, Hyogo 672-8034, Japan TEL: 079-245-1659	<b>Ako Power Station</b>	1062 Kariya Aza Higashi Okite, Ako, Hyogo 678-0239, Japan TEL: 0791-42-4111
<b>Osaka-Kita Branch</b>	3-9-3 Honjohigashi, Kita-ku, Osaka 531-8588, Japan TEL: 06-6373-1541	<b>Maizuru Power Station</b>	560-5 Aza Chitose, Maizuru, Kyoto 625-0135, Japan TEL: 0773-68-2004
<b>Osaka-Minami Branch</b>	3-9-5 Hamaguchinishi, Suminoe-ku, Osaka 559-0006, Japan TEL: 06-6672-1301	<b>Kansai International Airport Energy Center</b>	Senshu Kuko Naka 1, Tajiri-cho, Sennan-gun, Osaka 549-0011, Japan TEL: 072-456-6140
<b>Kyoto Branch</b>	579 Higashi-shiokojicho, Karasuma Nishi-iru, Shiokoji-dori, Shimogyo-ku, Kyoto 600-8216, Japan TEL: 075-361-7171		

### Main sales offices

<b>Kujo Sales Office</b>	TEL: 06-6582-2881	<b>Habikino Sales Office</b>	TEL: 072-956-3381	<b>Mihama Sales Office</b>	TEL: 0770-32-0025	<b>Wakayama Sales Office</b>	TEL: 073-422-8111
<b>Ogimachi Sales Office</b>	TEL: 06-6373-3131	<b>Minami Osaka Sales Office</b>	TEL: 072-238-8681	<b>Kobe Sales Office</b>	TEL: 078-392-6200	<b>Hashimoto Sales Office</b>	TEL: 0736-32-1245
<b>Hokusetsu Sales Office</b>	TEL: 06-6384-1131	<b>Kishiwada Sales Office</b>	TEL: 072-422-4701	<b>Awaji Sales Office</b>	TEL: 0799-22-0605	<b>Tanabe Sales Office</b>	TEL: 0739-22-1212
<b>Mikuni Sales Office</b>	TEL: 06-6391-1061	<b>Kyoto Sales Office</b>	TEL: 075-491-1141	<b>Akashi Sales Office</b>	TEL: 078-912-2651	<b>Shingu Sales Office</b>	TEL: 0735-22-5211
<b>Takatsuki Sales Office</b>	TEL: 072-676-3131	<b>Fushimi Sales Office</b>	TEL: 075-611-2131	<b>Hanshin Sales Office</b>	TEL: 06-6481-3961	<b>Gobo Sales Office</b>	TEL: 0739-22-1212
<b>Ikedada Sales Office</b>	TEL: 072-752-5070	<b>Fukuchiyama Sales Office</b>	TEL: 0773-22-3101	<b>Sanda Sales Office</b>	TEL: 079-563-2484	<b>Himeji Sales Office</b>	TEL: 079-292-3131
<b>Moriguchi Sales Office</b>	TEL: 06-6908-4731	<b>Maizuru Sales Office</b>	TEL: 0773-62-2540	<b>Nara Sales Office</b>	TEL: 0742-36-1201	<b>Kakogawa Sales Office</b>	TEL: 079-421-3201
<b>Hirakata Sales Office</b>	TEL: 072-841-1131	<b>Miyazu Sales Office</b>	TEL: 0772-22-2112	<b>Takada Sales Office</b>	TEL: 0745-53-1131	<b>Aioi Sales Office</b>	TEL: 0791-22-0730
<b>Namba Sales Office</b>	TEL: 06-6631-4101	<b>Obama Sales Office</b>	TEL: 0770-52-0890	<b>Shiga Sales Office</b>	TEL: 077-522-2611	<b>Yashiro Sales Office</b>	TEL: 0795-42-0260
<b>Higashi Sumiyoshi Sales Office</b>	TEL: 06-6700-3131	<b>Mineyama Sales Office</b>	TEL: 0772-62-0051	<b>Hikone Sales Office</b>	TEL: 0749-22-0080	<b>Toyooka Sales Office</b>	TEL: 0796-22-3131
<b>Higashiosaka Sales Office</b>	TEL: 06-6787-5011	<b>Takahama Sales Office</b>	TEL: 0770-72-1212	<b>Yokaichi Sales Office</b>	TEL: 0748-22-2111		

Note: When calling any of the locations in Japan listed above, replace the 0 of the area code with the country code 81.

### Main affiliated companies

<b>Integrated energy supply</b>	<b>Information and telecommunications</b>	<b>Group business support</b>	<b>Other business areas</b>
ECHIZEN ENELINE CO., INC. eL ENERGY Company Incorporated Osaka Bioenergy Co., Ltd. Osaka Rinkai Energy Service Corporation KIA Heating & Cooling Supply Co., Ltd. Kanden Energy Development Co., Inc. Kanden Energy Solution Co., Inc. KOUKA ENERGY Company Incorporated KOBHE HEATING AND COOLING SUPPLY Co., Ltd. SAKAI LNG Corp The Japan Atomic Power Company HYDRO EDGE Co., Ltd. Wakayama Kyodo Power Company, Inc.	Kanden System Solutions Co., Inc. K-Opticom Corp. K Cable Television Corporation Teruya Corporation	Enegate Co., Ltd. THE GENERAL ENVIRONMENTAL TECHNOS CO., LTD. The Kanden L&A Company, Ltd. Kanden EL Auto System Co., Ltd. Kanden Engineering Corp. Kanden Office Work Co., Inc. The Kanden Services Co., Inc. Kanden CS Forum Inc. Kanden Joinus Co., Ltd. Kanden Power-Tech Corp. Kanden Business Support Corporation Kanden Plant Corp. KINDEN CORPORATION The Kurube Gorge Railway Co., Ltd. Institute of Nuclear Safety System, Inc. Nuclear Engineering, Ltd. NIHON NETWORK SUPPORT CO., LTD. NEWJEC INC.	LNG Ebisu Shipping Corporation Osaka School Amenity Service Co., Inc. OG-Kanden Joint Planning Co. Kansai Sojitz Enrichment Investing Co. Kansai Electron Beam Co., Ltd. Kanden L-Heart Co., Inc. Kanden-el-farm, Inc. Kansai Electric Power Australia Pty. Ltd. KANDEN GEO-RE Inc. Kanden Venture Management Corp METEOROLOGICAL ENGINEERING CENTER INC. CCL Co., Ltd. Japan Australia Uranium Resources Development Co., Ltd. Japan Indonesia LNG Co., Ltd. Japan Electron Beam Irradiation Service, Inc. KPIC Netherlands, B.V. International Nuclear Energy Development of Japan Co., Ltd. Japan Nuclear Fuel Ltd.

