The Kansai Electric Power Co., Inc. | Company Profile 2001

Power To Brighten Our Lives

Kansai EP supplies life-supporting energy.

Responding proactively to the diversifying needs of our customers

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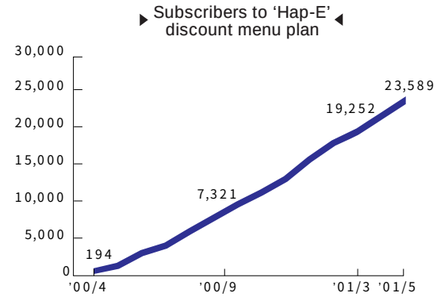
To respond to
our customers' increasingly diversified
and sophisticated energy requirements
as well as currents toward
industry deregulation,
Kansai EP is taking impressive steps to
transform itself from
an electric power company to an
energy solutions provider.

(from top)
One-stop customer services
Home switchboard inspection
Totally electric school lunch service center
(Kinomoto-cho, Shiga Prefecture)



Transformation to Energy Solutions Provider

In response to diversifying customer needs and industry deregulation, Kansai EP is implementing a decisive transformation of its basic corporate role from a utility supplier to a provider of value-added energy solutions. To achieve this new positioning, we are taking aggressive steps to re-engineer our operations companywide and instituting measures to enable us to take full advantage of resources throughout our group network.

Skills Honed through Decades of Experience

Kansai EP has been delivering a stable supply of high-quality electric power for roughly half a century. Today our engineering staff apply the company's wealth of accumulated experience in all aspects of their activities, in order to achieve ideal solutions to every customer need. Simultaneously we are vigorously creating an environment to enable our comprehensive group capabilities to function with optimum effect.

Innovator in Menu Options

In recent years Kansai EP has set a number of major industry precedents with respect to rate plan development. In timing with partial deregulation implemented in March 2000, we launched a new discount menu targeted at totally electric homes. We also introduced a new scheme, offered to commercial and industrial users, which is based on load factor categories, and a special discount program created for customers who construct new or expanded factories or office buildings. Going forward, we will continue to devote our corporate resources to the development of rate schedules in our customers' best interests.

One-stop Customer Service System

Applying state-of-the-art interfacing of information technology, Kansai EP has built a "one-stop" customer service network embracing all of its service bases. The configuration is making it possible for us to respond ever more speedily and accurately to customer inquiries and requests.

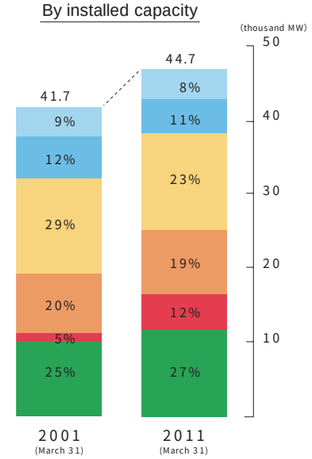
Ensuring a stable power supply through the opti mum generation mix

Japan is a nation of
limited energy resources.
To ensure a stable and sustainable
power supply,
Kansai EP vigorously pursues
the optimum generation mix
of generation modes.

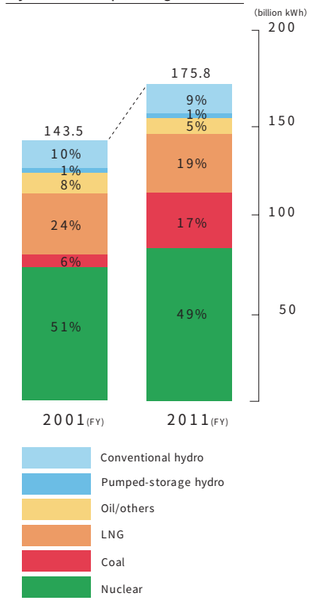
Central Load Dispatching Center

▶ Breakdown of power sources*◀

By installed capacity



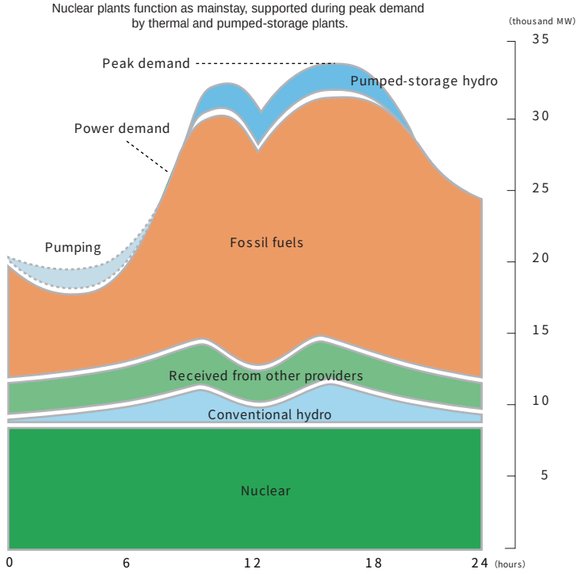
By volume of power generation



*Power received from other providers included.

▶ 24-hour fluctuations in power demand and power sources (summer) ◀

Nuclear plants function as mainstay, supported during peak demand by thermal and pumped-storage plants.



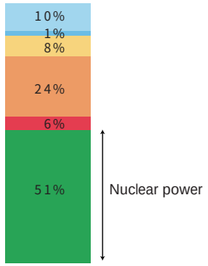
Probing and Delivering the Optimum Generation Mix

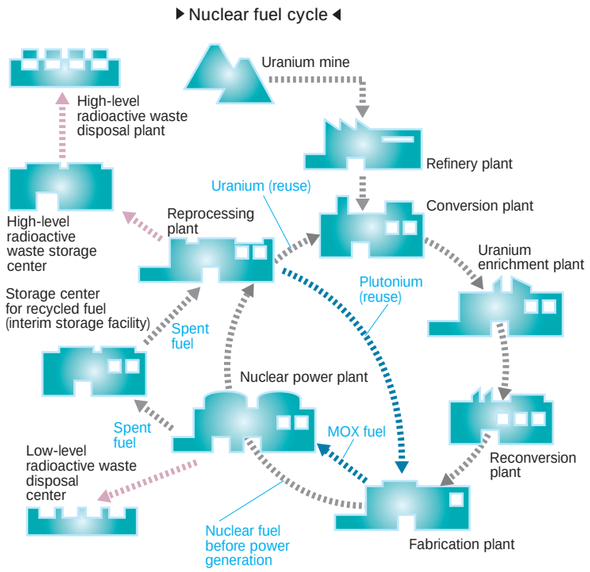
Achieving a well-balanced generation mix begins with a thorough understanding of the strengths and weaknesses of all options available: stability of fuel supply, impact on the environment, economic viability, adaptability to future demand expansion. Based on that understanding, options are then coordinated in a manner ensuring a power supply of utmost efficiency and stability. Kansai EP's best generation mix places nuclear power in the base-load role, fossil fuels in a middle-load role, and conventional hydro and pumped-storage hydro cover both peak and base-load needs. During peak hours, maximum stability and efficiency are assured through flexible dependency on fossil fuels and pumped-storage hydro power.

A Commitment to Meet Rising Demand

The 21st century is destined to be a century marked by rising demand for electric power. As demographics shift toward an ever more mature society, home environments will become increasingly automated and convenience will be progressively targeted through power-assisted nursing aids. Meanwhile, as society becomes ever more information-intensive, a new array of electronic products and information equipment will become an indispensable feature of homes and offices. To meet the ever expanding power needs these developments will engender, Kansai EP is working now to forge the optimum generation mix of reliable power generation modes to satisfy those requirements well into the future.

Placing nuclear power in the principal role





Spent fuel rod inspection (Takahama Nuclear Plant)

Central Control Room (Takahama Nuclear Plant)

Nuclear power plants (from left):
Ohi Plant (4,710 MW),
Mihama Plant (1,666 MW),
Takahama Plant (3,392 MW)

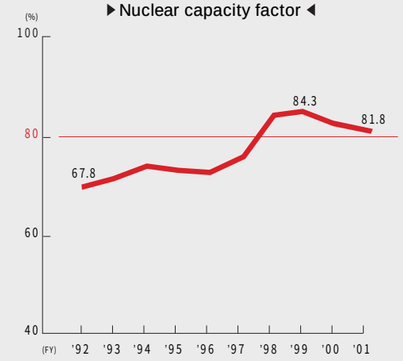
Salient Economic and Environmental Benefits

At Kansai EP, 51% of total electricity output derives from nuclear power, an energy source offering important economic and environmental advantages. Not only is uranium available in dependable supply, recycling of spent fuel can boost efficiency in energy usage many times over. Equally significant, generation of electricity from nuclear power produces no CO_2, so it can make a dramatic contribution to curbing global warming. Of course, in every aspect of our reliance on nuclear power, we always accord foremost priority and utmost attention to the assurance of maximum safety in all areas of operation, upstream and down.

Safe, Efficient Use of Uranium Resources

Kansai EP is vigorously carrying forward a program targeted at making effective use of uranium resources and reducing plutonium stocks. Under this project, plutonium recovered by reprocessing spent nuclear fuel is mixed with uranium to form mixed oxide (MOX) fuel.

▶Nuclear capacity factor◀



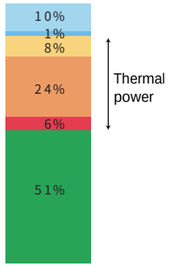
Another Vital, Flexible Energy Source

Thermal power is a vital source of energy offering supreme elasticity to cope with continuously fluctuating energy demand. At Kansai EP, 38% of total electricity output is generated using energy created by burning fossil fuels. Over the long term, we aim to diversify our fuel options through the use of coal, available at relatively stable prices, and LNG, an environmentally clean energy source.

Proactively Developing Hydro Power

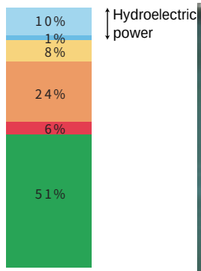
Today a comparably modest 11% of the electricity generated by Kansai EP derives from hydroelectric power, but in light of this energy source's environmental advantages and Japan's available water resources, we are working aggressively to develop increased capacity in this area. We also rely significantly on pumped-storage hydro power, a method whereby water is pumped during low-demand nighttime hours to support power generation requirements during peak daylight hours.

Using thermal power as elastic, middle-load energy sources



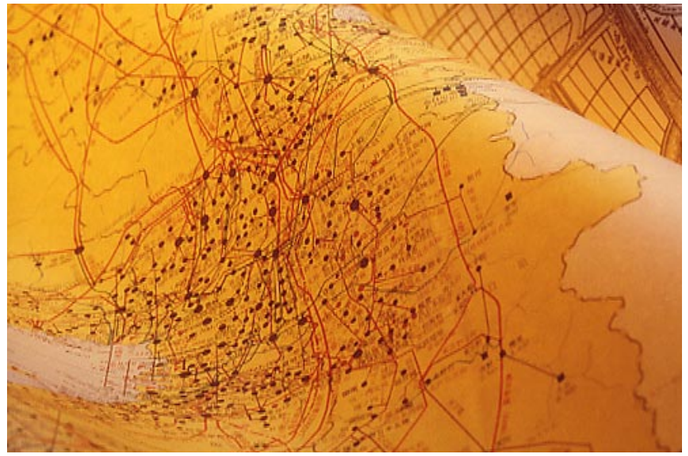
(from top)
Himeji No.1 Thermal Power Plant (1,442 MW)
Himeji LNG Control and Command Center

Making optimum use of renewable energy sources



Kurobegawa No.4 Thermal Power Plant (335 MW)

Ensuring a stable supply of high-quality electric power



(from top)
Transmission network map
Shin-Ikoma Substation

Highly Sophisticated Power Supply Network

To deliver a stable supply of electricity efficiently from the power station to the customer is one of Kansai EP's overriding missions, and to fulfill that mission we have long worked to continuously reinforce and update our Transmission and Distribution (T&D) facilities. Today, for example, sophisticated systems applying information technologies perform round-the-clock network monitoring and automated T&D system control. In addition to pursuing ever more advanced network operating systems, we also carry out all necessary steps to prepare against all types of possible mishaps. The result is that Kansai EP boasts one of the world's strongest records in reducing the incidence and length of power failures. Going forward, while maintaining our high quality standards, we will continue to maintain power supply systems of ever greater efficiency, and we will pursue ever lower T&D system costs through the adoption of new technologies and new engineering methods.

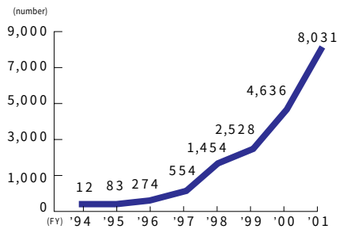
Taking a committed, global approach to environ m ental concerns

As an energy supplier,
Kansai EP proactively pursues research
and corporate activities targeted at
protecting the environment.
Their scope is worldwide.

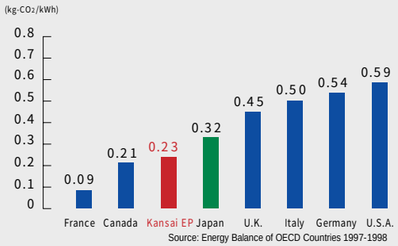
(from top)
Flue-gas decarbonization testing
(Technical Research Center)
Flue-gas decarbonization pilot plant (Nanko Plant)

Photovoltaic power-generating devices and attractively designed flue (Nanko Plant)

Purchases of surplus photovoltaic-generated power



Comparison of CO_2 emission levels in major countries, 1998



Source: Energy Balance of OECD Countries 1997-1998

Reducing CO_2 Emissions on Global Scale

To counteract the warming of the earth's environment, Kansai EP is actively committed to reducing the world's CO_2 emissions. Toward that objective, in our domestic operations we are making steady progress in promoting the use of nuclear power, enhancing thermal energy efficiency, and engaging in research into flue-gas decarbonization technology. Moreover, from the perspective that reducing CO_2 emissions is a task of global proportions, we take our activities beyond national borders and participate in a multitude of international projects. For example, in Indonesia we are conducting joint research targeted at regeneration of tropical rain forests, and in Thailand we are investigating technologies relating to mangrove afforestation.

Internationally Certified in Environmental Management

We are also actively working to forge environmental management structures up to the highest international standards at our thermal and nuclear power plants, power stations and sales offices. The success of our efforts to date is reflected in our acquisition of ISO14001 certification at our Himeji No.1 and four other operating bases.

Vital Support to New Energy Initiatives

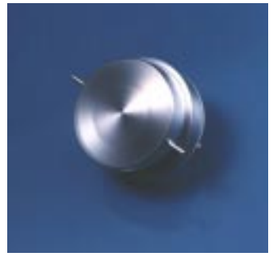
Kansai EP helps to foster expanded adoption of wind and solar energy by supporting the Center for Industrial Renovation of Kansai's (CIRK) "Kansai Green Power Fund," which is targeted at promoting the use of new energies. We also actively purchase surplus power produced by wind and solar generating facilities installed by our customers.

Probing new technologies to survive intensifying competition in the energy market

In an ongoing quest to supply
high-quality electric power
and enhance customer convenience,
Kansai EP dedicates its resources to
the development of new energy technologies
and attractive new services
to serve as driving forces of tomorrow's
business expansion.

(from top)
Redox-flow battery
Micro gas turbine undergoing field test

(from left)
Research into CO_2 separation and fixation (Technical Research Center)
Wind power generation equipment (Okutataragi Pumped-Storage Plant/150 kW)



New silicon carbide diode

Products to Satisfy the Customer's Needs

R&D programs at Kansai EP focus on the creation of products offering ever greater convenience and economy. Among the more recent fruits of our labors is an innovative system for heating, cooling and hot-water supply that makes use of relatively less expensive energy generated during nighttime hours. Another project in progress is the development of redox-flow batteries; easy to maintain and offering outstanding service life, they can play a significant role as emergency power sources or as energy boosters to counter momentary voltage drops.

Exploring New Avenues in Multi-energy Services

Micro gas turbines harbor great potential to become a common alternative in power-generating systems, owing to their salient advantages in terms of compact size, simple structure, and ease of maintenance. Today Kansai EP is carrying forward a robust R&D program focused on micro gas turbines. Field tests are being performed to assess their cogeneration characteristics, endurance, system interconnection characteristics, and impact on the environment, in order to assess their overall feasibility as decentralized power sources.

Aggressive Stance on Environmental Protection

In conjunction with our strong commitment to protect the global environment, we pursue an active program of research into high-performance chemical absorbents of CO_2. Already we have acquired related patents not only in Japan but also in the United States, Europe and Asia, and our technologies have been adopted in a urea production plant in Malaysia. We are also conducting research into regeneration of tropical rain forests as a means of revitalizing the natural environment and creating expanded CO_2 absorption sinks.

Semiconductor Elements for Tomorrow

Kansai EP is also vigorously involved in basic research into silicon carbide (SiC) diodes, targeting their application into the power industry. Conventional silicon diodes are vulnerable to breakage under high voltage, and they are prone to significant power loss. SiC diodes are a revolutionary new type of diode that offers outstanding promise as a low-loss semiconductor element enabling a host of next-generation power applications, such as cooling units of smaller size.