



### Message from the Management

Since its establishment in 1951, The Kansai Electric Power Company, Inc. (Kansai EP) has steadily forged relationships of solid trust with its customers, the local community and its shareholders through the stable supply of electricity at attractively low rates and services delivered with faithful dependability. To respond to that trust, going forward we will continue to address the longrange and public needs of our local area, with special stress on the safe operation of nuclear power facilities.

To achieve the Company's sustainable growth in the current era, when the electric power industry is undergoing major transformations precipitated by de regulatory initiatives, we pledge to devote our full resources to the creation of optimum value for our customers and the further fortification of our manage ment base. We will create value for our customers not only through the develop ment of enhanced services and rate schedules in our electricity operations, but also by mustering the comprehensive resources of our group network, which en compass a broad palette of operations including gas provision, amenities meeting life cycle needs, and IT services. Through these diverse undertakings we will support, in unprecedented ways, our customers' lifestyles and business activities. We will pursue an ever stronger and more resilient management base in order to ensure our successful survival in the coming era of fierce competition. Through the promotion of management efficiency enhancement, we will work to secure price competitiveness and to reinforce our financial structure, to allow us to re spond ever more ably to the expectations of our customers and shareholders.

We earnestly ask for your continued support of these various aims in the years ahead.



Yoshihisa Akiyama

Yohsaku Fuji Chairman of the Board of Directors President and Director

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Message from the Management

# Together, We Will Build a Brilliant Future Kansai EP is the vital link in the chain of progress.



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# We are expanding our horizons into all-new realms of possibility.

## Total Solution Power



At Kansai EP our long-standing corporate mission has been to supply high-quality electricity to local customers with optimum dependability and at optimally competitive prices.

Today, we are determined to do even more, and for even more people.

We are turning our rich experience and proven expertise to advantage in ever more ways – not only as a supplier of electricity but through provision of a kaleidoscope of energy solutions, services in support of lifecycle needs, and IT services.

## We are forging new lifestyles of unprecedented pleasure and comfort.



Internet services (K-Opticom)

Electric hot-water supply system









For more than half a century, Kansai EP has worked unceasingly in pursuit of the stable supply of electricity that its customers require to carry on their lives. Going forward, we will continue to fulfill our responsibility to the local community by developing an ever-expanding array of services to enhance their satisfaction further, as a way of expressing gratitude for our customers' faithful support.



As times change, so too do our living environments in the home. Kansai EP's "Hap-E Life" is a program designed to enrich our customers' daily lives through greater security, convenience and comfort. Its underlying aim is the achievement of a residential environment centered on electricity to meet virtually all energy requirements. The program also encompasses Internet services enabling interactive communication worldwide, and home security services to provide assured protection of all family members.



IH stove-1

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Housing performance evaluation / indication services (Kansai Jyutaku Hinshitsu Hosho)



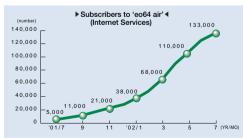


Home remodeling to electrical installations (KANDEN EHOUSE)

## Proactive Promotion of Totally Electric Homes Kansai EP actively promotes the adoption of fully ele

Kansai EP actively promotes the adoption of fully electric homes as a way to bring unprecedented richness to the lives of its customers. Features of today's electric homes include the safety of IH (induction heater) stove-tops and the convenience of electric hot-water supply systems, which enable hot baths at any time without waiting. In support of our commitment, we offer "Hap-E," an attractive discount menu available exclusively to customers who live in totally electric homes. Additionally we offer a "Hap-E Package" which gives subscribers the option of leasing their home appliances; related services extend to follow-up repair and maintenance.





### Group Resources Devoted to Life Enrichment

In support of fully electric living environments, Kansai EP provides a host of services in conjunction with its Group companies. These cover all aspects from initial planning of home or condominium installations to quality assurance and residential remodeling. One example of how our services enrich lives is by offering access to our 40,000-kilometer fiber-optic network stretching throughout the entire Kansai region, enabling Internet services for today's broadband era. Other meticulously attentive services on offer include services relating to home security, daily life support of senior citizens, and payment settlement services. Together this cornucopia of services makes Kansai EP customers happy and proud to have us as their partner in achieving more convenient, safe and pleasurable lives.

Home security services (KANDEN Security of Society)

#### Solutions: Business

## We provide optimum solutions to a plethora of business needs.











## Infrastructure to Support Social Evolution

Throughout its history Kansai EP has played a vital role in support of social development through electricity supply. Today, in reflection of significant changes in the business environment over time, the importance of electricity to the business community has magnified remarkably. We solidly recognize our responsibility to furnish the energy infrastructure to support the nation's social and economic development, and we will continue to dedicate our full resources to maintaining a reliable supply of high-quality electricity at competitive prices.



Kansai EP utilizes an array of primary energy sources to supply electricity to its customers, and we especially know how the adoption of efficient and environmentally friendly energy supports the needs of the business community. But because energy usage patterns vary according to type and scale of business, the number of issues demanding solutions equates to the number of our customers. Moreover, needs exist in phenomenal variety, from adoption of efficient energy systems to consultation on energy use. As professionals in the energy world, we respond to this multitude of customer needs by tapping our technological capabilities and knowhow accumulated over many years. Today, while maintaining a core focus on electricity supply, we also offer gas options, solutions pertaining to energy facilities, and maintenance services, and we will continue to pursue an abundant menu of activities in the years ahead.



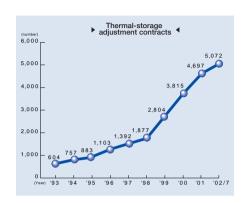


















Gas shipment by tanker truck (Himeji Storage Depot)

#### Rate Options Tailored to Customer Requirements

Kansai EP has a tradition of developing rate options optimally satisfying all customer needs, from those of the industrial sector where large-scale factories are the norm to the requirements of the business community, where the standard may be a commercial operation of small scale. Going forward, in parallel with increasingly diversified and sophisticated formats of energy usage, we will continue to take the initiative in developing and offering finely tailored rate menus as our way of responding to the full spectrum of our customers' demands

### Solutions of High Added Value

Applying knowledge accumulated through five decades, Kansai EP today provides a wealth of energy solutions ranging from our "Eco Ice" thermal-storage systems making use of power generated at night, to easily managed and environmentally attractive kitchen systems for commercial establishments. As professional experts in energy, we diagnose our customers' installations in terms of energy efficiency, and we offer solutions against instantaneous voltage dips from lightning or other causes. We also provide dependable support to our customers' business operations not only through our main focus on electricity supply, but also through provision of gas energy, maintenance of cogeneration systems, and technologically advanced solutions involving optimum combinations of energy resources. In the area of information technology (IT), we offer Internet access services and leasedline services. Finally, we are also developing a passel of new services to support the business community, including staffing services and payment settlement services.

# We are applying expertise today to the development of tomorrow.

## Total Solution Power



No matter how times might change, the importance of Kansai EP's role

— to provide stable supplies of electricity — never diminishes. Our driving force is an unwavering commitment to respond to our customers' trust by furnishing infrastructure to support their lives and social development. Based on the managerial resources we have cultivated through electricity operations, today we are probing boundless new possibilities with respect to environmental solutions, research and development, and overseas operations.

## Stable Supply

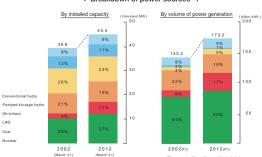
## Wholly integrated operations enable stable electricity supplies.



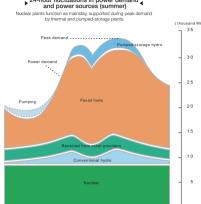
Central Load Dispatching Center

Kansai EP realizes stable supplies of electricity by taking responsibility for all aspects from power generation through sales. We also ensure efficient provision of high-quality electricity by pursuing the optimum generation mix factoring in the respective advantages of nuclear, thermal and hydro power options.

#### ▶ Breakdown of power sources\* ◀



### 24-hour fluctuations in power demand



#### Taking Responsibility for All Related Operations

24 (hours)

To ensure stable supplies of power to all customers, Kansai EP shoulders the responsibility for all operational aspects from initial generation through sales. We also promote the optimum generation mix of energy sources and are focusing efforts to forge a distribution system of superlative quality and efficiency.

#### Pursuit of the Optimum Generation Mix

The optimum generation mix can be defined as a stable and efficient supply of power combining the advantages of each of the three generation modes: nuclear, thermal and hydro. Advantages are gauged in terms that include stability of fuel supply, impact on the environment, economic viability, and adaptability to future changes in demand. The optimum mix pursued by Kansai EP positions nuclear power as the base load, and thermal and hydro power, including the pumped-storage variety, in supportive roles. Supply stability is ensured through a flexible stance illustrated by efficient use of thermal and pumped-storage hydro power during peak hours.

### Firm Response to Steadily Rising Demand

For Japan, the 21st century is expected to be an era marked by steadily rising demand for electric power. As society continues to gray and becomes increasingly informationintensive, electronic products and information equipment of tremendous variety are projected to become fixtures of both the home and business environments. Kansai EP is committed to maintaining stable power supplies to meet those expanding requirements well into the future.

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## **Nuclear Power**

## Nuclear power forms the core of our optimum generation mix.



of precious fuel resources, we take an uncompromising stance toward safety management.





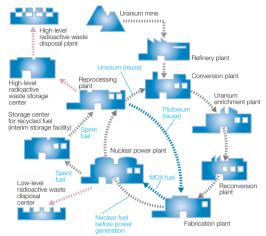
Mihama Nuclear Plant (1,666 MW)

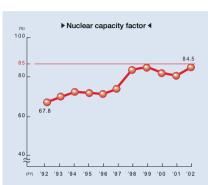


Takahama Nuclear Plant (3,392 MW)



#### ▶ Nuclear fuel cycle ◀





## Salient Economic and Environmental Benefits

Positioned at the core of Kansai EP's optimum generation mix is nuclear power, a clean source of energy that produces no CO2 during the generation process and is therefore highly effective in curbing global warming. Uranium, the source of nuclear energy, is available in stable supply, and when spent fuel is recycled, uranium resources can be efficiently utilized many times over. Currently 54% of Kansai EP's total electrici ty output derives from nuclear power, and in recent years our nuclear capacity factor has exceeded 80%. Going forward, through enhanced efficiency in inspections and other initia tives, we aim to raise that factor above 85%.



Periodic fuel rod inspection (Takahama Nuclear Plant)

#### Safe, Efficient Use of Precious Resources

In a quest for efficient use of uranium and stocks of pluto nium, which is recovered through reprocessing of spent nu clear fuel, Kansai EP is carrying forward a program under which plutonium is mixed with uranium to form mixed ox ide (MOX) fuel. Nuclear power is widely recognized for its economic and environmental benefits, but in every respect it is the safety factor that is accorded highest priority. We are deeply committed to maintaining the most stringent safety measures throughout our nuclear operations, to ensure en during social trust.

Transmission &

Distribution

## Thermal & Hydroelectric Power

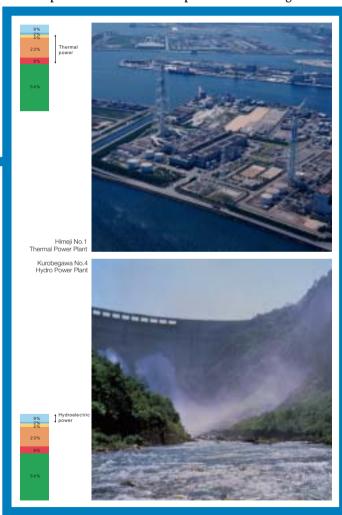
### Balanced Reliance on Diversified Fuels

Thermal power plays a key role as a middle-load energy source that offers su preme elasticity to cope with continuously fluctuating demand. Presently 35% of Kansai EPs total electricity output is gener ated from fossil fuels. Our long-range aim is to diversify our thermal fuel options through greater reliance on coal, available at relatively stable prices, and liquefied natural gas (LNG), which is environmen tally compatible.

## Hydro Development Focused on Use of Domestic Resources

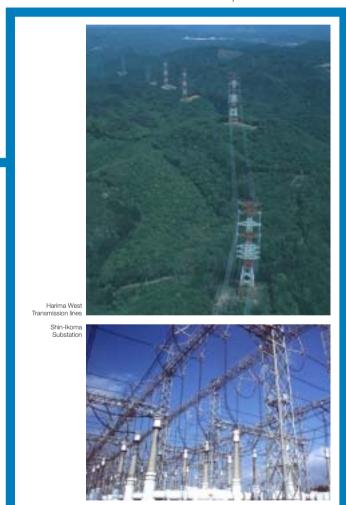
Today a comparably modest 11% of the electricity generated by Kansai EP derives from hydroelectric power, but in view of this energy source's environmental benefits and the availability of domestic water resources, we are actively developing increased capacity in this area. Development initiatives include pumped-storage hydro power, a method whereby water is pumped from one reservoir to another at a higher elevation during nighttime hours, when the power-generation system is not otherwise operating at full capacity, to meet peak daytime demand or emergency needs.

## Thermal power enables elastic response to fluctuating demand.



Hydro power is naturally available and environmentally friendly.

## We work around the clock to ensure stable, efficient distribution.



## World-class Transmission and

Distribution System To deliver electricity stably and efficiently from the power station to the customer, Kansai EP has consistently worked to rein force and update its transmission and distrib ution (T&D) facilities while simultaneously pursuing higher levels of system economy. The fruit of our labors is illustrated today by sophisticated systems, integrating ad vanced information technologies, that moni tor and control our vast T&D network around the clock. In addition, we carry out training and drills to prepare for every con ceivable mishap. These efforts have been re warded by significant decreases in the incidence and length of power outages per customer, enabling Kansai EP to achieve one of the world's highest levels in power supply stability. Going forward, while maintaining our uncompromising quality standards, we will continue to adopt new technologies and engineering methods and reduce our system costs in order to achieve a T&D network of ever greater efficiency.

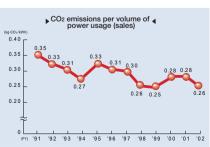
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## Environmental Protection

## Our R&D and other activities aim to safeguard the Earth's environment.



Kansai EP contributes to protection of the Earth's environment in numerous ways. These include initiatives to curb global warming by reducing  $CO_2$  emissions, development of environmental systems meeting international standards, and measures to promote a recycling-oriented society.





Tree planting





Wind-power generation equipment supported by Kansai Green Power Fund (Taiko-yama, Kyoto)

Nanko Thermal Power Plant

#### Globally Active in Quest for Reduced Emissions

To counteract global warming, Kansai EP is actively commit ted to reducing CO2 emissions worldwide. Toward that objec tive, domestically we promote the use of nuclear power, pursue enhanced efficiency from thermal energy, and conduct research into flue-gas decarbonization technologies and development of thermal-storage systems that use electricity generated during nighttime hours mainly by nuclear facilities. Outside Japan we participate in multifarious projects focused on scaling back CO2 emissions. One example is a research project in Thailand that is investigating technologies relating to mangrove afforestation.

## Internationally Certified in Environmental Management

Kansai EP is also taking aggressive steps to forge environmental management systems worthy of certification by the International Organization for Standardization (ISO). The success of our efforts to date is reflected in acquisition of ISO 14001 certification at the Himeji No.1 power plant and 10 other operating bases.

### Proponent of Clean Energies and Broad-based Recycling

Kansai EP actively supports the "Kansai Green Power Fund," which was established to promote adoption of wind and solar energies, and we purchase surplus power generated by those means at facilities installed by our customers. We are also an avid participant in projects targeting the achievement of a society sustainable through recycling. Related initiatives include promotion of recycling and efficient use of resources, and curbing and proper treatment of wastes unsuitable for reuse.

## Research &

Development

## We continuously explore exciting new possibilities for tomorrow.



Research into CO2 separation and fixation (Technical Research Center)

Relying on its advanced technological capabilities and vast expertise accumulated through half a century, Kansai EP engages in R&D on kaleidoscopic fronts, in a continuing quest for new products offering economic and other benefits to society.



Redox-flow battery



Basic research into SOEC materials (Technical Research Center)

SiC diode module testing (Technical Research Center)







Hydrogen production and storage testing (Technical Research Center)

#### Development of Products Elevating Customer Satisfaction

Kansai EP steadfastly pursues R&D projects targeting the creation of new products that will offer ever greater convenience and economy to society. Among more recent achievements are our innovative systems for heating, cooling and hot-water supply that use relatively less expensive energy generated at night. Another project in progress is development of redox-flow (power storage) batteries; easy to maintain and offering long service life, they are well suited to serving as emergency power sources or as energy boosters to counter instantaneous voltage dips. We are also carrying forward research into solid oxide fuel cells (SOFC), which excel in power-generation efficiency, stability and environmental friendliness; they are garnering wide attention for use in applications ranging from small-scale home power supplies to an alternative option to thermal power plants.

#### Globally Recognized for Contributions to Environmental Protection

For some time, in conjunction with our environmental protection initiatives we have carried out R&D into high-performance chemical absorbents of CO2, and today our achievements have won patents not only in Japan but also in the United States, Europe and Asia. Related technologies have already 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 expanding CO2 absorption sinks.

#### Basic Research Focused on Reducing Power Loss

As part of our basic research program, we are probing next-generation power elements to supersede conventional silicon elements, in a quest to substantially reduce power loss. The revolutionary new semiconductor elements under development are relatively immune to crystal breakage under high voltage, and power loss is lessened significantly. They are expected to make salient contributions to cost reductions and productivity enhancement at electrical installations.

## Overseas **Operations**

## Our horizons are expanding beyond Asia to the entire world.



Through technological cooperation, Kansai EP is making significant contributions to resolving major global issues of tremendous variety. Heading the list is construction of a hydro power plant in conjunction with the San Roque Multipurpose Project in the Philippines.











#### Array of Projects of Global Scope

In 1998 Kansai EP became Japan's first power provider to take part in a power-generation project overseas. For the San Roque Multipurpose Project in the Philippines, we constructed a hydro power plant under a "BOT" (Build/Operate/Transfer) scheme: after operating the plant for 25 years, we will transfer the facility to that country. This initiative marked the commencement of our active involvement in a host of projects overseas. To date these include: a fund targeted at conserving energy and curbing emissions in Eastern Europe; the Naniwa Project, whereby gas turbines no longer needed in Japan are given a second life as reliable power sources in the United States; and a project involving an LNG base in northern Taiwan, applying our experience in LNG transport and off-loading terminal operation.

### Aggressive Approach to Issues of Global Scale

Worldwide cooperation is indispensable to addressing the major issues confronting the global community, such as global warming and sustainable development. The power industry can play a particularly important role in the private sector by transferring technologies relating to nuclear power generation, energy conservation and environmental protection, and Kansai EP is looked upon to make significant contributions to these and other areas. Those expectations inspire us to apply our technologies and knowhow to a broad range of projects aimed at mitigating changes in the global climate. These encompass collaboration with the developing countries toward reducing greenhouse gas emissions, participation in international organizations that promote development of sustainable energies, and the development of the human resources needed to deal with power and environmental concerns in the developing world.

## **Regional Activities**

## Our joy is to bring joy to the lives of all local citizens.



By actively participating in community activities, from local festivals to recycling programs, we make ongoing contributions to regional social development.



FM CO-CO-LO





Youth soccer game



Osaka Castle and Osaka Business Park (OBP



#### Deepening Ties Through Diverse Local Activities

Kansai EP strengthens its ties with local citizens in myriad ways. To stimulate curiosity toward science and electricity, we go directly into classrooms and conduct workshops involving electricity. To safeguard the lives of senior citizens living alone and protect important cultural properties, we undertake regular inspections of related electrical facilities. We also maintain open avenues of communication by supporting concerts, art exhibitions and other cultural events, and sports activities including football and youth

### Joint Action on the Environment

The 21st century is destined to be a century of coping with environmental issues, and at Kansai EP we are determined to support the local community in addressing environmental concerns. Our program of "eco-friendly" activities, implemented at all sales offices, works hand-inhand with local citizens to improve the environment through initiatives such as tree planting and local beautification

### Venues for Enjoyable Learning about Electricity

With the desire to bring energy concerns into sharper focus at the individual level, we have established "PR Halls" at 22 locations around our operating area. Here, visitors can observe how electricity is generated and learn about energy issues first-hand, in an atmosphere designed for fun and enjoyment.

## **Group Business**

Kanden Gas And Cogeneration Company Incorporated eL ENERGY Company Incorporated SAKAI LNG Corporation Kanden Energy Development Co., Inc. KIA Heating & Cooling Supply Co., Ltd. Cosmosquare Energy Service Corporation Osaka Konohana Rinkai Energy Service Corporation Rinku Energy Center Corporation Wakayama Marina City Energy Service Co., Ltd. KOBE HEATING AND COOLING SUPPLY Co., Ltd.

The Kanden Industries, Inc. KANDEN REAL ESTATE CO., LTD. UJIDEN BUILDING CO., LTD. THE AMAGASAKI TECHNOLAND COMPANY INCORPORATED KAN-DEN BUILDING MANAGEMENT Co., Ltd. URBAN SERVICE Co., Ltd. KANDEN EHOUSE CORPORATION Kansai Jyutaku Hinshitsu Hosho Co., Ltd.

KANDEN Security of Society, Incorporated

Clearpass Co., Ltd.

EL SUEHIRO FOOD SERVICE CO.

Kanden Information Systems Company, **Energy-**Incorporated Kansai Telecommunication Technology related Osaka Media Port Corporation business POWERDCOM, Inc. Kanden Joy Life Co., Ltd. LINECOM Co., Inc. **TERUYA Corporation** Akinai Biz Square Corporation Lifecycle-Information related technology busines KINDEN CORPORATION Other The Kanden Kogyo, business Incorporated Electricity Kansai Tech Corporation areas NIHON ARM CO., LTD.

Kansai Power International Corporation Japan Atomic Power Company Wakayama Kyodo Power Company, Inc. Sakai Kyodo Power Company, Inc. Japan Australia Resources Development Co., Ltd. Japan Indonesia LNG Co., Ltd. JISCO-EB. Co., LTD.

Kansai Power Venture Management Corporation Kansai Power Business Support Corporation Kurobe Gorge Railway Co., Ltd. Kanden EL Auto System Corporation

Kanden L-Heart Co., Inc.

The Kanden Joinus Company, Incorporated EL Quest Company Inc.

OG-Kanden Joint Planning Company KYOSEI Co., Inc.

## [In-house venture businesses]

KANDEN L-FARM CO., LTD. CCL Co., Ltd. KANDEN L-GARDEN CO., LTD. (As of August 31, 2002)

Kansai Instrument Transformer Co., Ltd.

DAITO CO., LTD.

TOKO SEIKI CO., LTD.

K-Opticom Corporation

Keihan Cable Television

KANSAI MULTIMEDIA SERVICE COMPANY

Kansai.com, Inc.

K-SQUARE, Inc.

KINKI CONCRETE INDUSTRIES CO., LTD.

NEW JEC INC

KANSAI ENVIRONMENTAL ENGINEERING CENTER CO., LTD.

Kansai Electrical Instruments Co., Ltd.

SONODA INSTRUMENTS INC.

The Kanden Seisakusho Company, Limited

KANDEN AMENIX CO., LTD.

KANDEN KAKOH CO., Inc.

The Kanden Services Company, Incorporated

TOKAI DENGYO Company, Incorporated

KANDEN WELBE Company, Incorporated

Nuclear Engineering, Ltd.

Institute of Nuclear Safety System, Incorporated

**Brief History** 

## Corporate Data

Corporate Data

Overview (As of March 31, 2002)

Date of establishment: May 1, 1951 Paid-in capital: ¥489,320 million Outstanding shares: 962.7 million

Operating revenues: ¥2.517.817 million (consolidated: ¥2.651.597 million) Total assets: ¥7.043.444 million (consolidated: ¥7.507.556 million)

Employees: 25.567

Energy sales volume: Lighting: 44,347 million kWh

> Power: 95,432 million kWh Total: 139,779 million kWh Lighting: 11.491 thousand

Contracted customers:

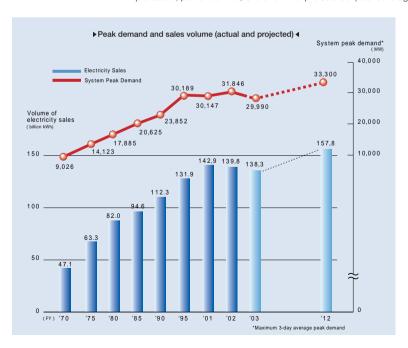
Power: 1.398 thousand 12.889 thousand Total:

152,454 million kWh Gross system input:

System peak demand: 33,060 MW (August 2, 2001)

Entire Osaka, Kyoto, Nara, Shiga and Wakayama prefectures; greater part of Hyogo Supply area:

prefecture; portions of Mie, Gifu and Fukui prefectures (total coverage area: 28,700 km²)





#### THE KANSAI ELECTRIC POWER CO., INC.

Head Office: 3-22, Nakanoshima 3-chome, Kita-ku, Osaka 530-8270, Japan

Phone: 06-6441-8821 URL: http://www.kepco.co.jp