• The Kansai Electric Power Co., Inc. Annual Report 2004 Business Focus: Demand and Supply



Coping with demand growth through effective use of resources, infrastructure and innovations





## Economic Recovery to Drive Sales Expansion

In fiscal 2004 Kansai EP recorded total electricity sales of 140.2 billion kWh, a 1.1% decrease from the year-earlier level. The sales contraction was largely attributable to reduced demand for air-conditioning and heating as Japan experienced the coolest summer in 10 years and generally mild winter temperatures.

Going forward, however, now that the national economy is in a clear recovery trend, electricity demand is expected to mark steady expansion, especially for use in homes and businesses as living standards continue to im prove and as Japanese society becomes in creasingly information-intensive.

## Making Maximum Use of Existing Facilities

Electricity sales expansion normally comes hand in hand with increases in peak demand. At Kansai EP, in order to cope with projected growth in demand at peak levels we are compelled to pursue ongoing develop ment of our power infrastructure. At the same time, in order to continuously enhance our competitive position, we must also maximize effective use of existing facilities while probing ways to minimize increases in peak demand. In line with these dual aims, we are taking a wide spectrum of steps targeted at improving our load factor.

Specifically, we are vigorously promoting the adoption of systems engineered for greater energy efficiency. Two notable examples are "Eco Ice" and "Eco Cute." Eco Ice is our inno vative thermal-storage system that retains power generated during nighttime hours, when demand is modest, and thereby makes a significant contribution to easing daytime peak system demand. Eco Cute are our newly launched electric heat-pump water heaters that use a natural refrigerant (CO2). We also provide attractive rate schedules tailored to in duce customers to adopt these energy-saving systems. The burgeoning success of these ini tiatives is reflected in the gradual improve ment in our load factor in recent years.



With electricity demand poised for sustained expansion, Kansai EP is exploring all avenues to optimize use of available resources and infrastructure.



## In Pursuit of the Optimum Generation Mix

Japan, a nation of limited natural resour ces, is in a perennially precarious energy posi tion. To cope with this vulnerability, Kansai EP continuously probes the optimum combina tion of nuclear, thermal and hydro power, capitalizing on the respective advantages of each generation method to maximum effect.

Nuclear power forms the core of our en ergy platforms, meeting a majority 56% of the Company's total output demand. Nuclear power offers salient economic advantages be cause we pioneered its development, and this long record today yields benefits in terms of relatively modest depreciation costs and a sus tained high capacity factor. Nuclear energy is also friendly to the environment as it produces low levels of CO2 emissions.

Thermal power, which offers superior load-following characteristics, is our secondmost important source of energy. In this area, we are pursuing diversification beyond oil de pendency and striving for efficient operation of facilities by retiring or suspending, at length, operation of power plants plagued by poor efficiency or low load factor.

We have also developed hydroelectric power aggressively, in view of this energy source's modest burden on the environment and the need to optimize effective use of Japan's available resources. Today pumpedstorage hydropower plants play a significant role in satisfying peak demand.