O The Kansai Electric Power Co., Inc. Annual Report 2003 Business Focus: Demand and Supply

Meeting growing demand through effective use of resources, infrastructure and innovations

entral Load Dispatching Center

Sales Expansion Amid Incipient **Economic Recovery**

In fiscal 2003 the Japanese economy exhibited signs of recovery in some seg ments, but the overall situation remained quite severe. Kansai EP recorded a 1.5% year-on-year increase in sales volume nonetheless, with total electricity sales reaching 141.8 billion kWh. Two factors were largely responsible: increased demand for heat ing in response to an unusually cold winter, and incipient recovery in production activities in se lect industries.

Beyond the near term, electricity demand is expected to mark steady ex pansion ahead, especially for use in homes and businesses as living standards contin ue to improve and as the nation becomes increasingly information-intensive.

Pursuing Maximum Use of Existing Infrastructure

Electricity sales expansion puts increas ing strain on the total power infrastruc ture. To utilize existing infrastructure to optimum effect — and thereby enhance the Company's competitive position - we are taking steps to minimize increases in peak demand on the system: in other words, to improve our load factor.

Specifically, we encourage the adoption of and vigorously market systems engi neered for greater energy efficiency. Most notably these include "Eco Ice" and "Eco Cute." Eco Ice is our innovative thermalstorage system that retains power gener ated during nighttime hours, when de mand is modest, and thereby makes a sig nificant 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 induce customers to adopt these energy-saving sys tems. The burgeoning success of these initiatives is reflected in the gradual improvement in our load factor in re cent years.

Aiming for the Optimum Generation Mix

Japan, a nation of limited natural re sources, is in a perennially precarious en ergy position. To cope with this vulner ability, Kansai EP continuously probes the optimum combination of nuclear, thermal and hydro power, capitalizing on the re spective advantages of each generation method to maximum effect.

Nuclear power forms the core of our energy platforms, meeting a majority 57% of the Company's total output demand. Nuclear power offers salient economic ad vantages because we pioneered its devel opment, and this long record today yields benefits in terms of relatively modest de preciation costs and a sustained high ca pacity factor. Nuclear energy is also friend ly to the environment as it produces low levels of CO2 emissions.

Thermal power, which offers superior load-following characteristics, is our sec



ond-most important source of energy. In this area, we are pursuing diversification beyond oil dependency and striving for ef ficient operation of facilities by retiring or suspending, at length, operation of power plants plagued by poor efficiency or low load factor.

We are also developing hydroelectric power aggressively, in view of this energy source's modest burden on the environ ment and the need to optimize effective use of Japan's available resources. Pumped-storage hydropower plants play a sig nificant role in satisfying peak demand.







Periodic inspection of nuclear power plant turbines

To cope with ever-expanding electricity demand, Kansai EP explores all conceivable avenues to achieve optimal use of available resources and infrastructure.

