

# Protecting the Earth's environment as a responsible corporate citizen



Mangrove research



Nanko Thermal Plant



Kansai EP is Japan's first power provider to have its electricity acquire the "EcoLeaf"™ label. Under this labeling program, quantitative data on a product's environmental impact is certified and disclosed by a third party.



e8 Micro Hydropower CDM Project in the Kingdom of Bhutan



## Initiatives to Prevent Global Warming

At Kansai EP, we view environmental issues as matters of crucial importance that affect the safety and lives of our customers, our nation and the entire planet. We thus believe that undertaking maximum effort to address environmental issues is an inherent and natural course of action. Among those issues, global warming in particular is a problem that the whole world needs to combat with dedicated persistence over time, and we at Kansai EP are aggressively taking comprehensive measures in that direction as one of our foremost management objectives.

As a provider of electric power, the Company is promoting an array of measures to counter global warming. These include vigorous promotion of nuclear power generation as a technology that

emits no CO<sub>2</sub>, enhancement of the thermal efficiency of fossil-fuel-dependent generating facilities, and the development of decarbonization technologies for removing CO<sub>2</sub> emitted by thermal power plants. To illustrate, plans are currently moving forward to upgrade to a state-of-the-art, natural-gas-fired, combined-cycle generation system at our Sakaiko Thermal Power Station; the new technology is expected to reduce the plant's CO<sub>2</sub> emissions per unit of output (volume of CO<sub>2</sub> emitted per kWh of electricity generated) by approximately 30%. Another project under way, this one at the Maizuru Power Station, targets implementation of power generation using an admixture of biomass fuel (wood pellets) and coal; when completed, the new system is expected to cut CO<sub>2</sub> emissions by 92,000 tons per year.

Going forward, we will continue to carry out measures, both at home and overseas, to prevent global warming ever more vigorously.

\*1 A framework under which the developed and developing nations collaborate in initiatives targeted at curbing CO<sub>2</sub>. The mechanism enables credit for the reduced CO<sub>2</sub> volume to be shared by the assisting country.

**Kansai EP is a committed promoter of and dynamic contributor to initiatives, at home and abroad, to safeguard the global environment.**

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To achieve efficient use of energy by society as a whole, we are developing and pushing for wide spread adoption of a variety of innovative systems offering excellent efficiency. These include "Eco Ice," a thermal-storage air-conditioning system that utilizes power generated during nighttime hours, and "Eco Cute," an electric heat-pump water heater that uses a natural refrigerant.

In addition to the foregoing domestic initia

## Responding to the Demands of a Sustainable Society

In a quest to realize business activities that are fully compatible with the demands of a sustainable society, Kansai EP pursues the "3Rs" for dealing with industrial and other wastes: reduce, reuse and recycle. Measures are being taken to reduce and recycle wastes throughout the entire spectrum of our business activities.

To illustrate, the concrete poles from our power



Soil decontamination services: KANDEN GEO-RE Inc.

grids are completely recycled and used as road construction material, and the residual ash from the burning of coal to fuel our thermal power plants is used in entirety as material for making cement.

We also actively pursue "green purchasing," which accords foremost priority to purchasing products and services that impose minimal burden on the environment, and we promote energy and resource conservation activities within our offices.

Finally, we are equally active in recycling initiatives on a Groupwide basis. These include the creation of livestock bedding materials, fertilizers and soil enhancers from dam driftwood, and revitalization of contaminated soil through washing and thermal desorption.

## International Certification

As an integral part of the Company's initiatives in environmental protection, Kansai EP is progressively acquiring ISO 14000 certification, the global standard in environmental management, at its facilities. To date (March 2006) certification has successfully been secured at nine operating bases, centered on our fossil-fuel-burning power plants.

The Company is also taking steps to meet international standards in other important ways. As an example, Kansai EP is the first power provider in Japan to receive "Eco Leaf" environmental labeling certification, a Type III labeling system set by international standards. Certification was awarded in recognition of the environmental harmony of the electric power the Company supplies to its customers. As a result of comprehensive measures taken to prevent global warming, the certified power has one of the lowest levels of CO<sub>2</sub> emission volumes per kWh of generated electricity – the principal gauge of environmental compatibility – among all domestic power suppliers.