Environmental Initiatives

Fulfilling our social obligation to protect the environment, responsively and responsibly



Solar panels installed at Nanko Fossil Fuel Power Plant

As an energy supplier and a global citizen, Kansai EP is taking critical measures now to pass on a sustainable environment for tomorrow.

Comparison of CO₂ Emission Levels in Major Countries, 1998 (ka-CO₂/kWh)



France Canada Kansai EP Japan U.K. Italy Germany U.S.A. Source: Energy Balance of OECD Countries 1997-1998

Commitment to Environmental Management

At Kansai EP environmental management has long been accorded the full-time, full-fledged commitment which this highly influential aspect of our operations-touching on the very health and lives of our customers, our nation and our planet-deserves. Reduction of CO2 and other greenhouse gas emissions that are causing irreparable damage to our global environment is at the top of our list of priorities. However, achieving that aim requires aggressive and unwavering commitments on both the supply and demand sides.

To realize enhanced energy efficiency, we pursue an ongoing program focused on promotion of the use of nuclear power. We also actively promote alternative energy options such as solar energy. Activities in this sphere encompass not

> only the development of new technologies and installation of innovative equipment; we even purchase surplus energy generated by home generators. We also vigorously promote load leveling, which is effective in terms of both curbing CO₂ emissions

and trimming costs. To encourage users to shift their energy usage to nighttime hours, when nuclear power generation prevails, we push for



Wind-energy generating equipment at Okutataragi Pumped-storage Plant.

adoption of our innovative "Eco Ice," a highly efficient year-round air-temperature control system which uses ice and cold/warm water as energy sources. Finally, we are also actively working to advance a widespread transition to electric vehicles.

All of the above measures of course contribute not only to greater energy efficiency but also to reduction of harmful emissions. That these and other related efforts are bringing tangible results is clear from our statistics: in fiscal 2000 Kansai EP's CO₂ emissions were down by roughly 20.5 million tons as compared against fiscal 1991, despite the substantial increase in electricity generation over that decade. Our emission level per unit of generated electricity is now lower than in many major Western countries.

Beyond National Borders

Kansai EP is cooperating proactively with other nations to address our global goals together, from a worldwide perspective. In one example, we created a new flue-gas decarbonization technology involving development of one of the world's most energy-efficient chemical absorbents. After testing the system in a pilot plant at our Nanko generating facility, we have already exported it for use in a urea plant in Malaysia.

We are also working with other countries to achieve expanded absorption capability in the natural environment. Together with Gadjah Mada University of Indonesia we developed technology for regenerating and protecting tropical rain forests as natural CO2 absorption zones, and in Australia we are collaborating with the Oceanographic Research Institute in research

tion areas.

Most recently, in January 2000 Kansai EP participated in an investment fund targeted at promoting energy conservation in the nations of Eastern Europe. We are solidly committed to applying our technical expertise in this field to the enhancement of the environment of that region, and by extension our entire planet.

International Certification

operations.

Himeji No.1 Combined Cycle Power Plant, newly certified as ISO14001 compliant.



into use of coastal mangrove forests as CO2 fixa-

In conjunction with our environmental management initiatives, we are continuously striving to enhance the quality and safety levels of our facilities and bring them in line with international standards. In March 2000 our Miyazu Power Plant and the Himeji No.1 Power Plant acquired ISO14001 certification, and we are now working to expand our focus from fossil fuel plants to all facets and dimensions of our



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Flue-gas decarbonization pilot plant set up within Nanko Power Plant. Research is under way into recovery of CO₂ present in power-plant flue-gas emissions.