



## Promoting the use of electric appliances and proposing energy-saving ideas with the aim of creating an energy-efficient society.

The EcoCute solution helps to reduce CO<sub>2</sub> emissions.



●EcoCute electric hot-water system

If everyone used energy more efficiently, we could make an enormous reduction in CO<sub>2</sub> emissions. One way to improve efficiency is to use energy-saving EcoCute electric hot-water supply systems. Using advanced air-source heat-pump technology, these extremely efficient systems can significantly reduce CO<sub>2</sub> emissions. Promoting EcoCute systems is one part of our strategy to move toward a low-carbon society.

Environmental home budgeting - helpful information for consumers.

Kansai EP posts environmental home budgeting information on our website. Designed to make it easy for consumers to estimate the amount of CO<sub>2</sub> discharged from running their homes, the information can help consumers do their parts to save energy and improve the environment.



●Our environmental home budgeting website

Electric vehicles minimize impact to the environment.



●Electric vehicle (test model) under development  
Electric vehicles produce no CO<sub>2</sub> and no nitrogen oxide, and they are extremely quiet. Those are three good reasons why the electric vehicles being developed today are likely to become tomorrow's mainstay automobiles. There's another big reason too - electric vehicles are extremely energy-efficient, consuming only around one-tenth to one-quarter as much energy as a gasoline-powered vehicle. Kansai EP continues to promote the widespread use of these environmentally friendly vehicles. One way we're helping is by collecting and evaluating operation data as part of efforts to commercialize electric vehicles.



## Developing breakthrough CO<sub>2</sub>-reduction technologies and launching global warming-prevention initiatives.

New CO<sub>2</sub> separation and recovery technologies.

Anticipating the growing CO<sub>2</sub> crisis, in 1990 Kansai EP launched a project to develop technologies for separating and collecting CO<sub>2</sub> from the exhaust discharged at thermal power plants.



●Nanko Thermal Power Plant flue gas desulfurization plant

We teamed up with Mitsubishi Heavy Industries and built an experimental plant on the grounds of our Nanko Thermal Power Plant. Within three years after full-scale research had begun, we developed KS-1 - a CO<sub>2</sub> absorbing solution capable of collecting more than 90% of the CO<sub>2</sub> in exhaust gas. KS-1's superior performance has earned it acclaim as the world's best CO<sub>2</sub>-absorbing solution - a reputation it still enjoys today. The product is now used at a number of different factories, including overseas fertilizer plants, for collecting CO<sub>2</sub>. Our research lab continues with efforts to develop CO<sub>2</sub>-absorbing solutions with even higher efficiency, and we are working on applying KS-1 to the direct recovery of CO<sub>2</sub> from exhaust gas at thermal power plants.

Construction of a solar power plant in Tuvalu, an island under threat from global warming.

The average elevation point of Tuvalu is 2 meters above sea level. A consequence of global warming has been an increase in the sea level causing a threat to the South Pacific islands in the near future. Tuvalu is willing to do its own part for the mitigation of global warming and has requested collaboration with developed countries for the reduction of CO<sub>2</sub> emissions. Kansai EP has helped the aspiration setting up a 40-kW solar power generation system on the roof of the soccer stand in Funafuti, the capital of Tuvalu. Kansai EP has also transferred its know-how to construct and operate the system to Tuvalu Electric Company.



●Tuvalu Island in the South Pacific



■ Tuvalu's solar power plant receives abundant bright sunlight.  
A solar power plant built by Kansai EP in Funafuti, capital of Tuvalu, supplies electricity to some 50 homes on this South Pacific island.