



# To prevent global warming

As an effective means to prevent global warming, we promote energy-saving activities.

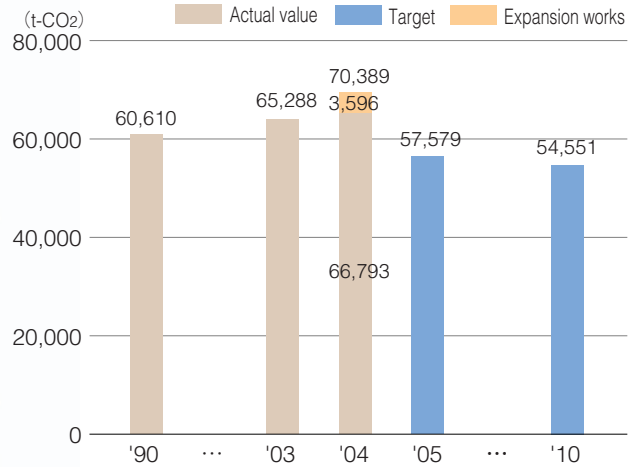
## Energy-saving activities

In order to reduce emissions of CO<sub>2</sub>, a cause of global warming, we are promoting the reduction of energy consumption by thoroughly eliminating the wasteful use of energy and by technological improvements.

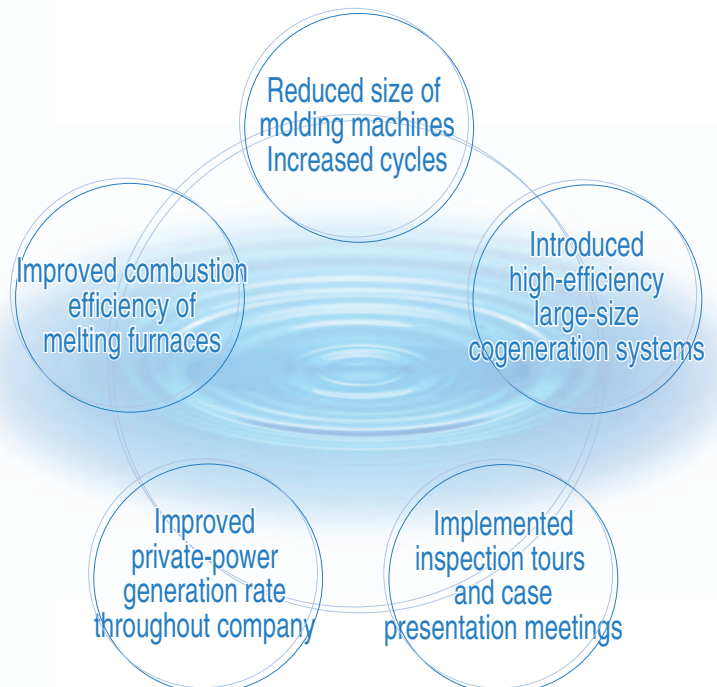
### ● Activities aimed at reducing greenhouse gas emissions

We introduced cogeneration systems and raised the efficiency of our production facilities; especially those with large energy consumption rates, but because of plant expansions and other reasons, greenhouse gas emissions increased 7.8% over the previous year. In 2005, still greater efforts will be made to save energy and achieve our emissions target.

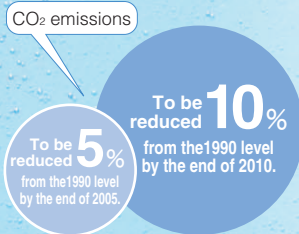
■ Changes of target value and actual value of CO<sub>2</sub> emissions



### ● Main activities



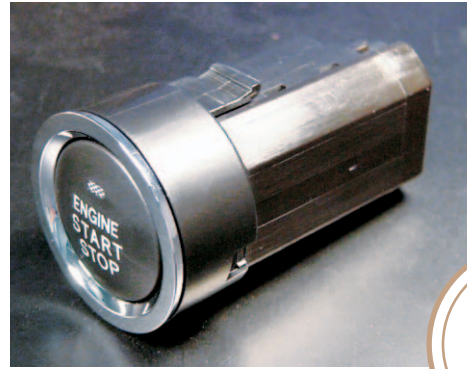
■ Mid-term target



## ● Weight reduction of engine start switch

Reducing the size and weight of parts is a good way to improve fuel economy and save resources.

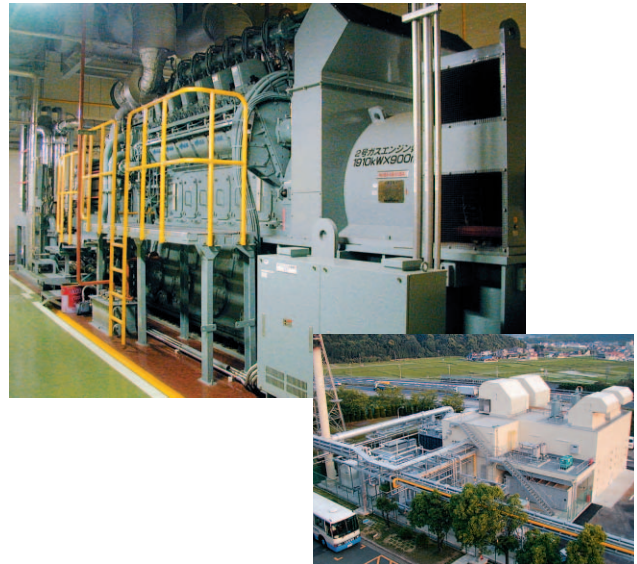
A conventional engine start switch comprises two parts: a switch section and a slot section. By changing the design, however, we were able to integrate the two parts into one. This integration reduced the product weight, as well as the volume, by 72%, resulting in a reduced engine mounting space.



Weight reduced by **72%** compared with a conventional engine start switch

## ● Comprehensive energy-saving project of Otowa Plant

From 2004 to 2005, in our Otowa Plant, high-efficiency and energy-saving type lighting was introduced throughout the plant, inverters were adopted for the pump power supply, and a high-efficiency large-size cogeneration system was introduced. The cogeneration system can not only produce about 50% of the plant electric power needs, but it can also efficiently recover waste heat (steam and warm water), which is effectively used for plant air-conditioning and the production process. In addition, the cogeneration system also functions as an emergency power supply for main facilities during a power failure.



## ● Improved combustion efficiency of casting machine remelting furnaces

In order to improve the combustion efficiency of our casting machine remelting furnaces, which require a large amount of energy, heat dissipation from the furnace itself was prevented by coating it with ceramic heat insulation, exhaust heat loss was prevented by mounting automatically controlled dampers in the stacks, air entry was prevented by mounting covers on the burner ports, and the air-fuel ratio during combustion was optimized.

