

# Reducing Greenhouse Gasses

The Group established the Subcommittee on Energy Savings in 2001 and has implemented a wide variety of energy-saving measures from early on.

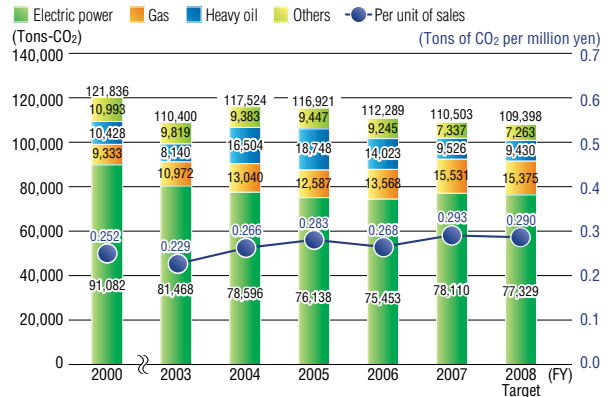
## Reducing Greenhouse Gas Emissions

To efficiently and steadily reduce CO<sub>2</sub> emissions, the Group set up the Subcommittee on Energy Savings as a venue where representatives from each business site can report on efficiency examples and copy one another's effective initiatives in the Groupwide effort to save energy.

Our goals for fiscal 2007 were to reduce groupwide CO<sub>2</sub> emissions by 1% per unit of sales compared with fiscal 2006, and to reduce total CO<sub>2</sub> emissions by 2,500 tons compared with fiscal 2006. Although total CO<sub>2</sub> emissions decreased 1,800 tons, emissions per unit of sales increased 10%, due to an approximately 10% decline in sales. We continue to strive for a 1% reduction per unit of sales across the Group in fiscal 2008.

As for the five greenhouse gasses besides CO<sub>2</sub>, with the revisions of the Act on Promotion of Global Warming Countermeasures and in accordance with the Calculation and Reporting Manual for Greenhouse Gas Emissions promulgated in November 2006 by Japan's Ministry of the Environment, we calculated data on usage and emissions at each Group company starting from the portion for fiscal 2006. After conversion to the weight in CO<sub>2</sub> having equivalent greenhouse impact, Groupwide emissions of these other greenhouse gasses were calculated at 602 tons in fiscal 2006 and 575 tons in fiscal 2007. This represents 0.5% of total CO<sub>2</sub> emissions.

## Groupwide CO<sub>2</sub> Emissions



### Example Initiative

Citizen Business Expert

#### Introducing a Thermal Storage Heat Pump System

To cut down on energy consumption, Citizen Business Expert replaced its aging absorption hot/cold water generator with a high-efficiency thermal storage heat pump air conditioning system. The company managed to cut peak power consumption by using a system that utilizes low-cost night-time power to make ice and hot water, employing the ice and hot water in thermal storage during the daytime for heating and cooling.

Implementation of this system cut CO<sub>2</sub> emissions in half, from 113 tons to 55 tons.



Thermal storage heat pump system

### Example Initiative

Citizen Saitama

#### Thoroughly Reducing Power Usage through Five Initiatives

Citizen Saitama Co., Ltd. works to save energy through the following five initiatives.

- 1) Activities to raise awareness of power saving at general assemblies
- 2) Reducing the operating time of compressors and related equipment
- 3) Implementing energy savings patrols
- 4) Introducing energy-efficient lighting fixtures to replace aging ones
- 5) Introducing energy-efficient air conditioning equipment to replace aging equipment

Thanks to these efforts, as well as favorable sales, in fiscal 2007 Citizen Saitama reduced its CO<sub>2</sub> emissions per unit of sales by 13% compared with fiscal 2006.

We endeavor to continue reducing energy consumption, such as by installing automatic stop mechanisms on equipment and using data on lighting intensity to decrease power used in lighting fixtures even more.



Energy savings patrol

### Example Initiative

Hua Du Factory

#### Saving Energy by Combining Production Lines into a Single Line

A Citizen Seimitsu subsidiary in China enhanced energy efficiency by combining production lines for glass substrates for hard disk drives, which had been divided between the first and second floors, into a single line on the second floor.

By eliminating the air-conditioning equipment, lighting and water purifying apparatuses on the first floor, the company cut yearly CO<sub>2</sub> emissions by 890 tons.