

Material Balance

The material balance represents an environmental assessment of Casio's energy-saving and resource-saving manufacturing practices. Casio is always striving to minimize its energy and resource inputs as well as its emissions and outputs.

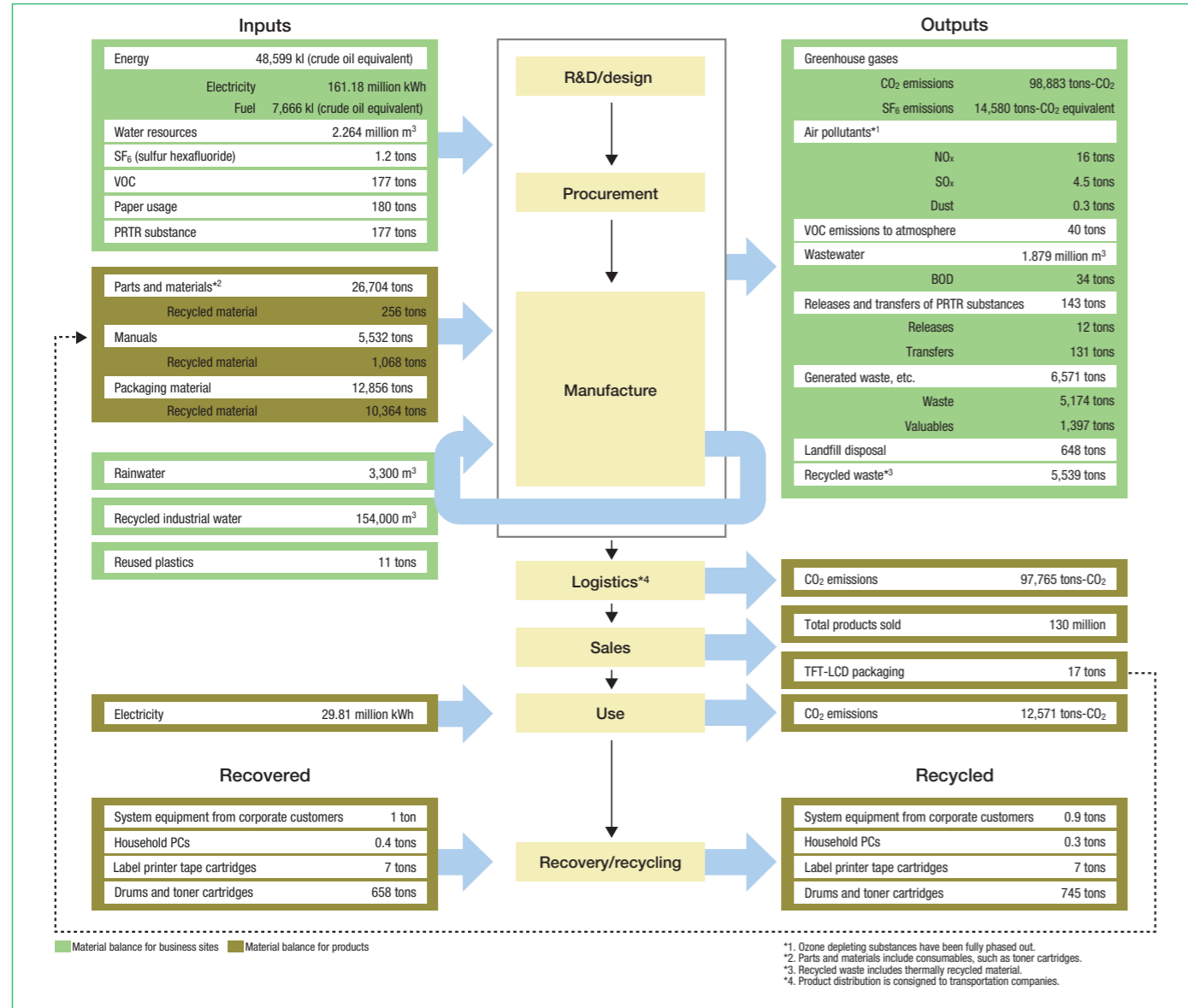
What is a Material Balance?

A material balance provides an overall picture of a company's environmental impact. It shows the amount of energy and resources a company uses in its business activities (inputs into business activities), the amount of environmentally harmful substances (including waste) it emits, and the amount of output it produces and sells (outputs from its business activities).

Fiscal 2009 Performance

Casio's fiscal 2009 material balance showed reduction in both inputs and outputs, including a major decline in CO₂ emissions of 29,890 tons. This is primarily attributed to a reduction in inputs resulting from downward adjustments to production caused by the economic slowdown, as well as the transfer of Casio's electronic component plants in Japan to a third party. As a result, the material balance per unit worsened for Casio's operations outside Japan, but improved for its operations in Japan. Going forward, Casio will continue to position greenhouse gas reduction as a priority environmental issue.

Material balance in business activities (fiscal 2009)



References p5. Material Balance (Electronics Segment)
 p6. Material Balance (Electronic Components Segment)

Environmental Performance

The best way to reduce environmental impact is to make daily improvements. Clean water, fresh air, and the beauty of greenery are all gifts we receive from the earth. Casio believes every day should involve some kind of effort to give something back to the earth. The care with which this is done is the measure of Casio's environmental performance.

Reducing CO₂ Emissions: Fiscal 2009 Results and Analysis

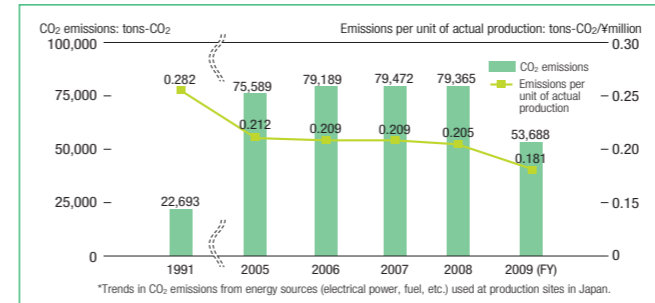
In the first year of the period covered by Casio's Environmental Action Plan (five years), efforts made at its Japanese sites resulted in a reduction accounting for 42% of its production site target (35% reduction in CO₂ emissions per unit of actual production compared to fiscal 1991) and a reduction accounting for 16% of its office target (9% total reduction compared to fiscal 1991).

Casio was able to fulfill its first-year commitment to the goals established by Japan's four electrical and electronics industry associations for meeting the Kyoto Protocol, which was ratified by Japan. This was made possible in part by the accumulation of energy-saving measures already implemented. Also, although there were concerns about a per-unit worsening due to downward adjustments to production in fiscal 2009, this was prevented by the transfer of Casio's electronic component plants in Japan to a third party, a move that reduced CO₂ emissions by about 20,000 tons-CO₂.

On the other hand, the Environmental Action Plan target year for outside Japan is fiscal 2013, and fiscal 2009 performance showed a 24% per-unit increase against the production site target (30% reduction in CO₂ emissions per unit of production compared to fiscal 2005) and a 27% increase against the target for office sites (3% total reduction compared to fiscal 2005).

At production sites outside Japan, total CO₂ emissions were reduced by 4,529 tons-CO₂ compared to the previous fiscal year. This is attributed to a change made at production sites about two years ago, whereby electronic component production was shifted in-house, as well as to downward adjustments to production resulting from the economic slowdown. In terms of office sites, meanwhile, there has been a net increase of six additional office sites that did not exist in the base year of fiscal 2005, including the addition of three new group sales companies in fiscal 2009.

CO₂ emissions (production sites in Japan)



Reducing CO₂ Emissions: Future

Casio made energy-saving investments in heating systems for production sites in Japan, which were to be its leading energy-saving efforts for fiscal 2009, and the system went online by the end of the fiscal year. The energy savings are to be achieved by adopting a heating system that replaces absorption chillers, which use heavy fuel oil A, with turbo chillers that run on electricity. Converted into CO₂ emissions, this has the potential to result in an annual reduction of 5,000 tons-CO₂, which will have a significant impact going forward.

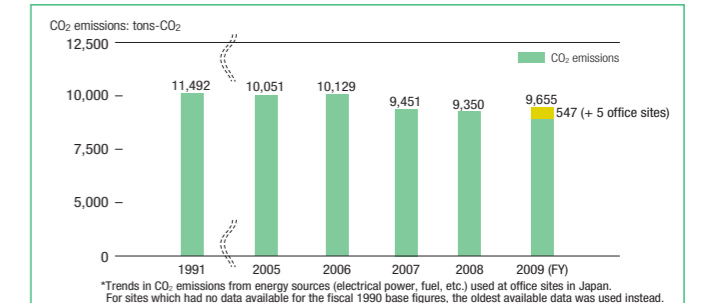
Even at Casio's office sites, the shift to energy-efficient lighting is gradually being made. However, since there are plans to incorporate many of Casio's office sites in Japan (including sales offices and others)—which are currently tenants in buildings operated by other companies—into its Action Plan, the total rate of reduction for office sites is expected to decline. This will make additional measures necessary.

Reporting now on office sites outside Japan, Casio has built a new energy-efficient building for Casio Europe, a leading sales and distribution center, and was doing business there by the end of fiscal 2009. Energy-saving improvements include the installation of a new air conditioning system that heats water and rooms using geothermal heat in the winter, and cools rooms during the summer by circulating water through pipes embedded in the walls and floors of the building. This system is capable of achieving a 30% to 45% reduction in CO₂ emissions over conventional systems, and is therefore expected to yield significant results in fiscal 2010 and beyond.

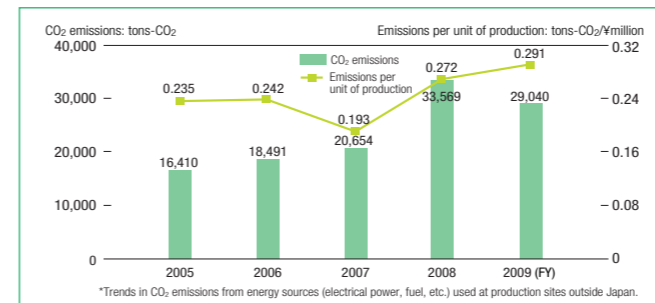
Important steps are also being taken at production sites outside Japan. Casio (Thailand) Co., Ltd., is starting to use company vehicles that have been converted from gasoline to compressed natural gas (CNG).

Casio will continue to analyze current conditions and reexamine future targets, and will take specific steps for achieving them.

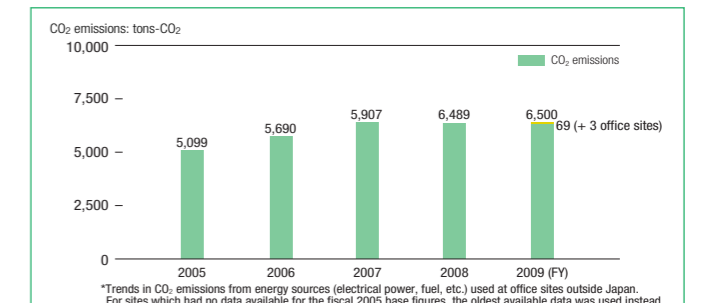
CO₂ emissions (office sites in Japan)



CO₂ emissions (production sites outside Japan)



CO₂ emissions (office sites outside Japan)



References p7. CO₂ Emissions (Electronics and Electronic Components Segments)