

Top Message	Interview to Head of Corporate Environmental Strategy Unit	Special Feature: The Power of ICT	Fujitsu Group Environmental Action Plan Stage VII	Chapter I Contribution to Society	Chapter II Reducing Our Environmental Burden	Environmental Management	Data Overview
-------------	--	-----------------------------------	---	-----------------------------------	---	--------------------------	---------------

Reducing Greenhouse Gases (GHG) Emissions and Boosting Energy Intensity at Our Business Sites
Promoting Environmentally Conscious Datacenters
Reduce CO₂ Emissions from Logistics and Transportation
Promoting CO₂ Emission Reductions with Our Business Partners
Increasing Amounts of Renewable Energy Used
Efficient Use of Water Resources
Reducing Chemical Substances Emissions
Limiting Amounts of Waste Generated
Product Recycling

Reducing Greenhouse Gases (GHG) Emissions and Boosting Energy Intensity at Our Business Sites

Our Approach

The Fujitsu Group is working in every location where it does business to reduce emissions from its own sites, promote the reduction of emissions along its value chain, and contribute to the reduction of emissions by its customers and society overall, in order to help fight global warming, and to do so from a common understanding of the necessity to halve (or cut by 80%, in the case of developed countries) greenhouse gases emitted across the globe by 2050.

The primary GHG emissions from our business sites (plants, datacenters, and offices) are CO₂ accompanying energy (electricity, fuel oil, and gas) usage, and perfluorocarbon (PFC), hydrofluorocarbon (HFC), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) used in semiconductor manufacturing. We have set reduction targets for these and are striving to decrease the amounts we use and emit.

Summary of FY 2013 Achievements

Targets under the Fujitsu Group Environmental Action Plan (Stage VII) (toward FY 2015)	Reduce greenhouse gas emissions in our business facilities by	20% (compared to FY 1990)
	Improve energy intensity in our business facilities over	1% (each year)
FY 2013 Targets	Reduce greenhouse gas emissions in our business facilities by	19% or more (compared to FY 1990)
	Improve energy intensity in our business facilities by an average	1% or more (each year)
FY 2013 Key Performance	Reduced greenhouse gas emissions in our business facilities by	29.4% (compared to FY 1990)
	Improved energy intensity in our business facilities	1.6%

FY 2013 Performance and Results

Promoted Reductions of CO₂ Emissions Accompanying Energy Consumption

As CO₂ reduction measures, we are continuing energy saving practices with the machinery at each business site (including installing energy efficient models, free cooling systems, and inverters, as well as switching fuels, etc.) optimizing production processes and drive machinery, optimizing office air-conditioning temperatures, saving energy used for lighting and office automation equipment, and promoting visualization and data measurement with regard to energy consumption.

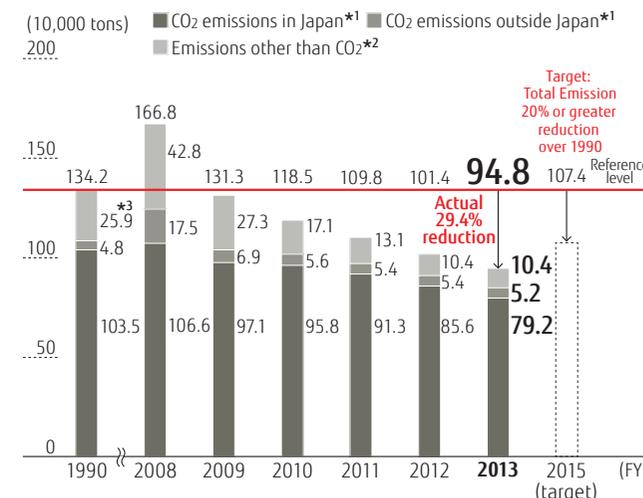
In addition, to reduce emissions of gases other than CO₂ (such as PFC, HFC, SF₆, and NF₃), we are switching to low global warming potential (GWP) gases, and installing abatement systems on production lines.

66,000-ton Year-On-Year Reduction of GHG

FY 2013 overall GHG emissions were approximately 948,000 tons (emission rate per unit of sales: 19.9 tons/100 mill. yen), which was a 29.4% reduction compared to FY 1990. The transfer of some businesses greatly affected reductions, bringing a 66,000-ton YoY reduction.

The breakdown of GHG was approximately 844,000 tons of CO₂ (792,000 tons emitted in Japan, 52,000 tons outside Japan) and approximately 104,000 tons of gases other than CO₂.

Trends in Total Greenhouse Gas Emissions



*1 CO₂ emissions in/outside Japan: CO₂ conversion factor for purchased electric power has been calculated with a fixed value of 0.407 tons of CO₂ per MWh since FY 2002 for performance reports in our Environmental Action Plan.
 *2 Emissions other than CO₂: These are converted to equivalent amounts of CO₂ using the global warming potential (GWP) of each gas.
 *3 Our FY 1995 performance is taken to be the same as emissions in FY 1990.

FY 2014 Targets and Plans

Continually Strengthen Facility Investment and Operational Improvements

At our datacenters and in some of our manufacturing of electronic components, increased CO₂ emissions are projected accompanying increases in energy usage. However, we will strive for 20% or greater reductions, compared to FY 1990, through continual efforts to invest in facilities and improve operations.

Top Message	Interview to Head of Corporate Environmental Strategy Unit	Special Feature: The Power of ICT	Fujitsu Group Environmental Action Plan Stage VII	Chapter I Contribution to Society	Chapter II Reducing Our Environmental Burden	Environmental Management	Data Overview	
Reducing Greenhouse Gases (GHG) Emissions and Boosting Energy Intensity at Our Business Sites	Promoting Environmentally Conscious Datacenters	Reduce CO ₂ Emissions from Logistics and Transportation	Promoting CO ₂ Emission Reductions with Our Business Partners	Increasing Amounts of Renewable Energy Used	Efficient Use of Water Resources	Reducing Chemical Substances Emissions	Limiting Amounts of Waste Generated	Product Recycling

Main Activities in FY 2013

Energy Savings By Changing Humidification in Clean Rooms

At Fujitsu Component Limited's technology development center, we are working to save energy by changing the way we humidify clean rooms, and by efficiently using waste heat from compressors.

Previously, we humidified our clean rooms at touch panel manufacturing plants by using steam from heating and cooling system boilers. This method, however, was insufficient, so we switched to a humidification system using pure water vaporizers inside the rooms. This allowed us to better regulate the humidity and also reduced our use of boiler fuel. Furthermore, although air-conditioning runs in the clean rooms year round, the pure water mist lowers room temperatures as the mist evaporates. This leads to lower loads on our air-conditioners, and reduces the electricity they use.

With regard to compressors, we are using coolers to lower room temperatures affected by the compressors' waste heat and to mitigate effects of high temperature on the efficiency of machinery. At the same time, we had been using steam from boilers to heat intake water in our water purifying machines. To address this, we started using heat exchangers and started heating intake water with waste heat from compressors. This allowed us to simultaneously reduce cooler electricity usage and boiler fuel consumption.

These measures resulted in annual CO₂ emission reductions of approximately 650 tons (close to 20% less YoY).



Humidification with pure water mist

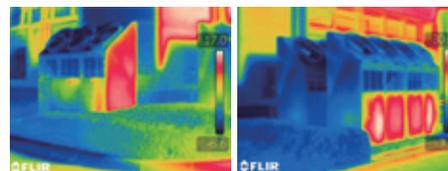
Deploying Our Energy Saving Caravan to Share Energy Reduction Measures Inside Fujitsu

In order to work toward ever greater energy saving, we initiated the Energy Saving Caravan at Fujitsu Facilities Limited, which is a company especially skilled at facility management. Employees from the leading ranks of each business site are appointed to the Caravan.

In FY 2013, the Caravan conducted crosschecks between eight target Fujitsu business sites. We examined the extent to which the energy saving measures we have accumulated and shared up to this point have been spread and adopted at each site, and we worked to pinpoint areas for improvement by offering multiple observations from new points of view. In order to make detailed checks of appropriate operations in different seasons of the year, inspections were carried out at three different times: in the hot period of summer, in an intermediate season, and in the cold period of winter. Expected benefits from deploying the Caravan, including benefits from the adoption of improvement proposals, brought a decrease in electricity usage of approximately 1,390 MWh.



Caravan members use a thermograph to check machinery outside of a heating/cooling room



Acquiring ISO 50001 Certification at FTS Augsburg (Germany)

Fujitsu Technology Solutions GmbH in Augsburg Germany and its Energy Management System have been certified in accordance with ISO 50001* in May 2014.

The scope of the established Energy Management System includes design, production, purchasing, supply chain, sales, service and data centers for ICT products and ICT solutions. The requirements of ISO 50001 are met based on energy policy, energy planning and continuous activity.

This certification ensures continuous efforts to improve energy efficiency and energy performance of our products and also their development and manufacturing in Europe.



ISO 50001 Certificate

* ISO 50001: An international standard for energy management systems for encouraging continuous improvement of energy performance, energy efficiency and energy saving measurements.