2 Realizing a Low Carbon Society through Green IT and CO$_2$ Reduction in Business Activities
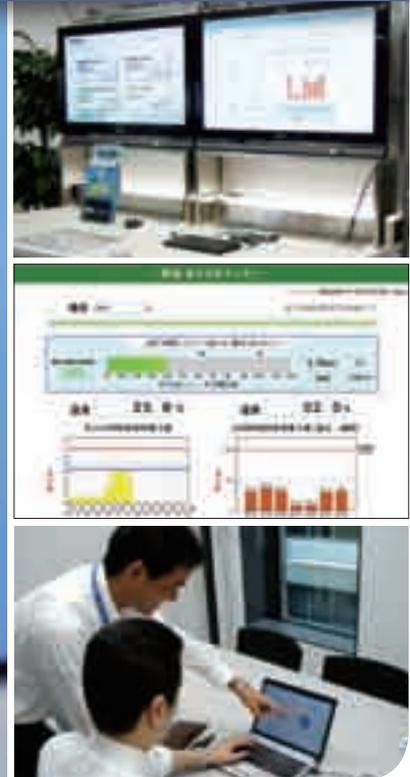
Green IT such as OKI's Web Sensing helps reduce CO$_2$ emissions from offices.

Realizing a Low Carbon Society

Global warming and climate change are two of the most important global issues. As they have become increasingly aggravated and conspicuous, there have been active discussions about possible solutions to them on a global basis. For example, the industrially advanced nations including China as a rapidly growing economy have been negotiating with each other for setting greenhouse gas emission targets. On the other hand, a wide range of measures to achieve such targets have also been taken including those about financial support, technical assistance and capacity building.

In line with this trend, the Energy Saving Act* was revised on April, 2010. As a result, energy consumption has to be managed and controlled by each company now, not by each factory or office. Many municipal governments have also tightened their regulations about energy saving and environmental protection. In addition, new product standards for energy saving are planned to be established in accordance with the Top Runner program in Japan while the certification standards for the Energy Star program have recently been revised to become more demanding. In short, there has been an accelerating move toward realizing a low carbon society in which greenhouse gas emissions can be reduced on a global basis.

The mitigation of climate change and the realization of a low carbon society are two of the most important agendas for the OKI Group. As a business group deeply involved in IT, we have actively promoted Green IT that has two aspects of "Green of IT" and "Green by IT," and made various activities to save energy. Furthermore, the OKI Group has made a concerted effort to address challenges caused by the Great East Japan Earthquake in March 2011, such as serious power shortages and the recovery of afflicted areas.

* The Energy Saving Act : The Act Concerning the Rational Use of Energy

Promotion of "Green of IT"

As the number of IT devices has dramatically increased with the spread of IT, the energy saving use of IT devices (Green of IT) has become an important challenge. In order to develop low-power-consumption products, the OKI Group has conducted environmental assessments in the design phase since 1998 in which each product is compared to its predecessors. In fiscal 2000, we introduced the OKI Eco Product Certification Program through which the energy-saving feature of each product is clarified. The certified products as well as the certification standards are posted on our website. In fiscal 2010, we started reviewing the certification standards in light of the compliance with the applicable energy-saving regulations.
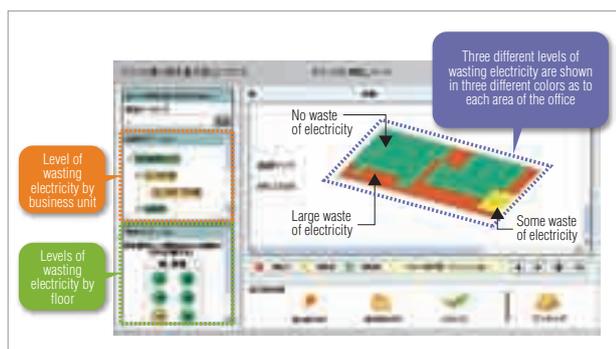
Promotion of "Green by IT"

Energy saving through the effective use of IT has attracted considerable attention since it can be introduced to various fields such as transportation and office work. Energy-saving

efforts of this type have been actively made since they can contribute to the reduction of CO_2 emissions from society as a whole.

In this context, the OKI Group has offered CoolClover and Web Sensing since 2009. The former is an energy management system for IT devices utilizing networks. The latter is a system to track and collect environmental information (such as temperature, humidity, power consumption and etc.) of offices or other facilities. Such environmental information are made available through an internet server.

Two technologies are used in these systems, sensor network technology to collect information, and inferencing technology to make situational judgments based on the collected data. Believing that these two technologies can be utilized in many different fields, we are currently developing some new systems using them. Among them are Real-time Power Monitoring System to infer the power consumption of IT devices from their operating conditions without using a wattmeter, and Power Consumption Visualization System for Offices that visualizes the power consumption of each area of an office in the form of a floor layout chart. The former allows the reduction of power consumption and helps promote effective energy-saving activities by inferring power consumption from an analysis of how IT devices are being used at an office. The latter has proven to be effective in raising energy-saving awareness by visualizing the areas where electricity is being wasted. Since there is an impending need for more effective systems to save energy, the OKI Group will continue to make its utmost efforts to commercialize these technologies.

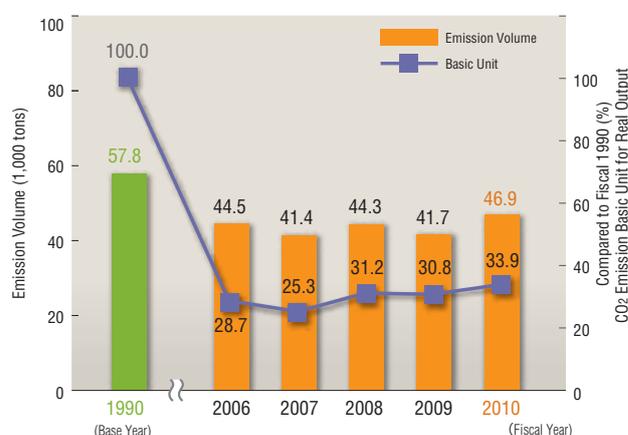● Power Consumption Visualization System for Offices

Environmental Efforts in Business Activities

While pursuing energy efficiency through products and services (Green IT), the OKI Group is also committed to reducing greenhouse gases such as carbon dioxide (CO_2) emitted from its business activities.

The OKI Group has already started various activities to meet the target for the Kyoto Protocol first commitment period. We made a 66.1% improvement of the basic unit for CO_2 emission with respect to real output* during fiscal 2010. It means that we have substantially exceeded a goal set in the Voluntary Action Plan on Measures to Fight Global Warming of the Japanese electric and electronics industry, "improving the basic unit for CO_2 emissions with respect to real output in fiscal 2010 by 35% or more compared to that in fiscal 1990." Our other efforts to combat global warming include the realization of zero-emission plants through carbon offset activities, production reforms, and the replacement of aging infrastructure facilities, let alone appropriate responses to the Revised Energy Saving Act.

Global warming and climate change are two of the most important issues that should be addressed by people around the world in the long run. The OKI Group will continue to address these issues through its products and business activities.

● CO_2 Emissions(from Major Production Sites of the OKI Group)

* Basic unit for CO_2 emission with respect to real output: CO_2 emission / real output (real output = nominal output / Bank of Japan's Domestic Corporate Goods Price Index for electrical machinery and equipment with fiscal 1990 as the base year)

![Column] **OKI's LED / Multifunction Printers Win Ecohitech Award in Italy**

In February 2011, OKI Data won the "2010 Ecohitech Award" in the category "Prodotti Hi-Tech Eco-Virtuosi" (Eco Conscious High-tech Products) in Italy for the eco-friendliness of its 16 printers launched there in July 2010. Sponsored by a consortium studying and evaluating office equipment, the award has been given to IT companies developing environmentally friendly products and solutions since its inception in 1998.

Equipped with its original IC chip called Green ASIC designed particularly for energy saving, OKI's A4 color LED printers and A4 color LED multifunction printers feature the Deep Sleep mode and a double face printing function, help users save electricity and paper, and thus allow considerable environmental performance.

Ecohitech Award ceremony