

# Environmental Report 2010



FDK Group Environmental Report

## To protect our irreplaceable Earth

## FDK Group Environmental Policy

The FDK Group recognizes that, in the environmental protection efforts that a corporation conducts together with its business activities, it must not only ensure that those activities comply with all national and local regulations, but must also voluntarily do its utmost to prevent global warming, reduce waste materials, control chemical substances, and take other actions from a global point of view. In May 2010, as a member of the Fujitsu Group, we revised the "FDK Group Environmental Policy" in order to promote environmental management that utilizes the distinctive characteristics of our member corporations.

#### Slogan FDK Group Cares about Nature and Safeguards our Planet

#### Philosophy

The FDK Group has established environmental protection as an important theme of corporate management. Thus, acting from the customer's viewpoint, we develop and provide battery products and electronic parts able to satisfy customers, while contributing in the process to the creation of a sustainable society that is based on the 3Es – Environment, Energy, and Economy – that is, on protecting the environment, conserving energy, and developing the economy. We also fulfill our social responsibility by conducting conscientious corporate activities that comply with environmental laws and standards. Moreover, in order to pass on nature's irreplaceable bounty and the Earth's beautiful environment to future generations, we will continue to maintain close communication and cooperation with local communities, while conducting environmental protection activities invigorated by each employees' spirit of solidarity.

### **Action Guidelines**

- 1. We will understand the burdens that our corporate activities place on the Earth's environment, and reduce those burdens by making our products more environmentally friendly in each stage of their lifecycle.
- 2. We will promote the development of environmentally compatible products by eliminating the use of harmful materials, reducing the energy required for product use, and increasing product longevity.
- 3. To prevent global warming, we will reduce the energy used in our factories and offices and improve our distribution operations.
- 4. We will reduce our environmental burdens through 3R (Reduce, Reuse, Recycle) activities.
- 5. We will promote green procurement for the raw materials, parts and packaging materials used for products.
- 6. We will observe all environmental laws and regulations, and strengthen our risk management for preventing pollution and other problems.
- 7. We will deepen our communication with local communities and contribute to efforts to protect the environment.



## Main Efforts

The FDK Group has built, at all of its production sites, including those overseas, an environmental management system (EMS) that conforms with ISO 14001. Environmental activities are conducted based on the FDK Group Environmental Action Plan. In fiscal 2009, we integrated the environmental management systems at all of FDK's domestic production sites with the Fujitsu Group's environmental management systems.

#### Main Targets and Results of Action Plan (at Domestic Production Sites)

Description	Targets (2007 to 2009)	Results (2007 to 2009)		
Global Warming Prevention Measures	Reduce the amount of energy consumption-based $CO_2$ emissions by 2% from the FY2006 level by the end of FY2010. (FY2006 level: 26,239 tons)	Reduced 22% from FY2006 level (FY2009 level: 20,450 tons)		
Increasing Product Values	Develop super-green products <sup>*1</sup> that have superior environmental characteristics.	Number of super-green products developed: 0 (The proportion of environmentally friendly products being developed reached 100%.)		
	Develop Environmental Efficiency Factor 2*2 products.	Number of products for which Factor 2 has been achieved: 0 (One Factor 2 product is under development.)		
Promoting Green Factories	Reduce VOC (volatile organic compound) emissions by 30% from the FY2000 level by the end of FY2010 (FY2000 level: 44.3 tons)	Reduced 40% from FY2000 level (FY2009 level: 26.8 tons)		
	Reduce the amount of waste emissions by $3\%$ from the FY2006 level by the end of FY2009. (FY2006 level: 1,294 tons)	Reduced 25% from FY2006 level (FY2009 level: 964 tons)		
Promoting Green Procurement	Promote the environmental management system (EMS) at business partner sites.	An EMS was built at 148 additional business partner sites.		
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 Super-green products: These products are those, among the products judged to be green products (environmentally friendly products) in a product environmental assessment, that are front runners for being "the world's first," "the world's smallest," "the first in the country," "the first in the industry," "the smallest in the country," or "the smallest in the industry."
 Environmental Efficiency Factor 2: Increasing the value of the product over twice its environmental burdens.

## Action plan for globally strengthening environmental activities FDK Group The Sixth Environmental Action Plan

The Sixth Environmental Action Plan, a three-year plan covering FY2010 through FY2012, addresses such issues as climate change and biodiversity.

Previous environmental action plans focused on domestic issues. In this latest plan, however, we have newly set global targets. Thus, by the end of FY2012, we aim to reduce the CO<sub>2</sub> from energy consumption by 6% from the FY1990 level, and cut the amount of waste material produced by 20% from the FY2007 level. Moreover, we will conduct social contribution activities and work to preserve biodiversity.

#### FDK Group The Sixth Environmental Action Plan

FDK Group The Sixth E			
Description	Targets (2010 to 2012)		
Promoting the Development of Environmentally Friendly Designs	<ul> <li>Develop at least 3 types of super-green products.</li> <li>Achieve an Environmental Efficiency Factor 1.2 or more for newly developed products.</li> </ul>	Activities to Reduce CO <sub>2</sub> As an effort to reduce CO <sub>2</sub> , FDK Twicell will introduce a solar energy generation facility (system	
Preventing Global Warming	• Reduce CO <sub>2</sub> emissions from energy consumption by 6% from the FY1990 level.	capacity: 120 kWh) scheduled to be completed at the end of	
Reducing Environmental Burdens through 3R (Reduce, Reuse, Recycle) Activities	<ul> <li>Reduce chemical emissions by 10% from the FY2007 level.</li> <li>Reduce the amount of waste material produced by 20% from the FY2007 level.</li> <li>Continue to maintain a 90% reuse rate for product materials.</li> </ul>	October 2010. Reduction of CO <sub>2</sub> Equivalent in camphor trees Approximately 112 trees	
Promoting Green Procurement	• Increase the number of business partner sites that build an EMS.	Solar Power Generation Panels	
Strengthening Environmental Management	<ul><li>Promote integration of the EMSs of Headquarters departments.</li><li>With FDK Tottori and FDK Twicell, conduct activities to integrate EMSs.</li></ul>		
Cultivating Communication with Local Communities, and Contributing to the Preservation of Biodiversity	• In cooperation with local communities, conduct environmental contribution and social contribution activities and work towards the preservation of biodiversity.	Conceptual drawing of FDK Twicell' solar power generation panel installati	

## Earth-Friendly "Development of Products" **Development of Environmentally Conscious Products**

When developing products, the FDK Group conducts a design review and performs a product environmental assessment aimed at building eco-friendliness into the product. Moreover, we have been grappling with the development of "super-green products" since FY2004, and working to increase the Environmental Efficiency Factor of products since FY2007.

## Large-Capacity Lithium Ion Capacitor

This is a storage device with a long charge/discharge cycle life and an ability to rapidly accept and discharge a large current.

By storing unneeded power and then discharging it when necessary, this device enables the efficient use and stable supply of power. It can also be used in hot environments.

#### Used in Solar Power Generation Systems

Jointly developed with Fuji Electric Systems Co., Ltd., lithium ion capacitor module is used for stabilizing the solar power generation systems on which demonstration experiments have been conducted, since August 2010, on Yonaguni Island and other outlying islands of Okinawa Prefecture. Equipping a solar power generation system with a lithium capacitor module makes it possible to stabilize the fluctuations in output caused by climate and other factors.

## Linear Tube LED Lamp and Power Source

Friendly to both the environment and people, this lighting device is able to replace fluorescent lamps (40W, 20W). Compared to fluorescent lamps, it reduces energy consumption and CO<sub>2</sub> emissions by approximately 60%. Thanks to a unique light-dispersing technology, dot patterns and glare have been eliminated.

Effective Use of Electrical Power

60%

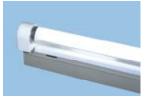
Reduction

in CO<sub>2</sub>

Emissions



Product Model Ene**C**apTen<sub>®</sub> ECM45 series



Product Model FLED40S•40-PSW-LHH



## **Building a Sustainable Society**

## A Recycling Business for Information Equipment and Electronic Equipment

The FDK Group also conducts an information-equipment and electronic-equipment recycling business aimed at furthering the creation of a sustainable society. Operating as the Chubu Region Recycling Center of Fujitsu Recycle System (FRS), FDK Eco-Tech Corporation collects and recycles the materials contained in used PCs and other information equipment, thereby contributing to the recycling and reuse of resources.

#### Features

- Handling recycling through two routes: FRS route and FDK ECO-TEC route
- Conducting various security measures
- Providing comprehensive processing, from collection and transport to disposal
- Specialized in one-site disassembly and the removal of over-sized equipment
- Appropriate handling of hazardous substances contained inside electronic equipment
- Recycling all types of electronic devices and information equipment of all manufacturers



PC disassembly work

FDK ECO-TECH CORPORATION website address http://www.fdk-ecotech.com/

## Together with Local Communities Social Contribution and Communication

As a global citizen, the FDK Group hopes that our beautiful planet and its bountiful nature will last forever. Thus, we are committed to developing social contribution initiatives and enhancing communication with the local communities in which we operate.



Lake Hamana (Shizuoka Prefecture) Participated in cleanup activities.

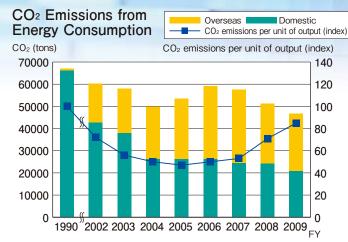


Umeda River (Aichi Prefecture) Participated in cleanup activities.



Dry cell workshop

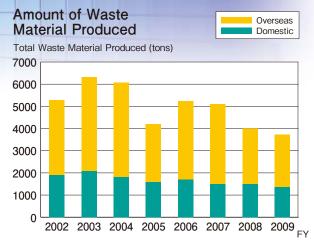
## Changes in Data on Main Environmental Burdens



#### "FDK Group Cares about Nature and Safeguards our Planet"



This booklet was printed with environmentally friendly soybean oil-based ink. This Environmental Report is a digest version summarizing the environmental activities in and after FY2009.



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