## Measures for Global Warming Prevention

The FDK Group is committed to various activities for prevention of global warming including energy-saving measures, improving logistics and promotion of recycled use at its factories and offices.

# **Energy-Saving Measures**

In order to prevent global warming, it is a mandatory requirement to reduce emission of CO<sub>2</sub>. The FDK Group commits itself in reducing energy consumption by introduction of energy-saving systems such as co-generation systems and improving the way existing facilities and equipment are operated and controlled.

#### Targets of the Third Environmental Action Plan 💻

Energy consumption and emission of CO<sub>2</sub> reduced at the end of FY 2006 by 15% of those in FY 2000 The scope of these reductions includes FDK's plants and offices in Japan.



## **Energy-Saving Activities**

In FY2006, the following energy-saving measures were put into practice, as our continuous efforts from the previous fiscal year.

- Improvement and renewal of compressors and air-conditioners to energy-saving types
- Revision of operating conditions and controls of systems and equipment
- Heat-insulation and introduction of outdoor air for buildings
- Appropriate control of room temperature and introduction of inverter lighting equipment in offices and energy-saving of office automation systems

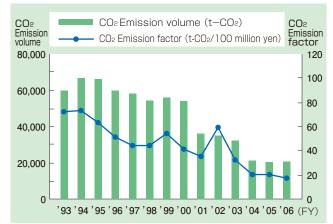
In addition to the above, production innovation campaigns were promoted throughout the FDK Group. This included space saving activities, or using less office space for a job. Due to this effort, energies consumed by cooling, heating and lighting were successfully reduced. As a result,  $CO_2$  emitted from the entire FDK Group was successfully reduced to 20,460 tons of  $CO_2$  (a reduction of 0.6% compared to in FY2005). This is a significant achievement as the reduction made in FY2006 marks a reduction by 62% compared to a reduction target of 15% from the level in FY2000, as outlined in the Third Environmental Action Plan. This is largely attributable to our business structural reform to make a shift from ferrite production, which consumes a large volume of energy by sintering furnaces, to electronic module production, in addition to our ongoing energy-saving efforts.

All domestic offices of the FDK Group have already achieved the reduction target of Kyoto Protocol, i.e. 'reducing greenhouse effect gas emission by 6% from the level in 1990.'



As  $CO_2$  is the only greenhouse effect gas the FDK Group emits from its offices and production sites, we commit ourselves in reducing  $CO_2$ .

#### Transition of CO<sub>2</sub> Emission



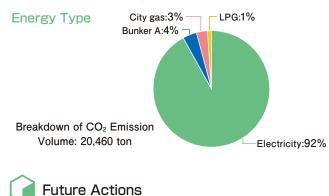
CO₂ Emission <u>'93</u> '94 '95 '96 '97 59,259 66,393 65,785 59,697 58,072

	-		-	-	-	
'00	'01	'02	'03	'04	'05	'06
53,998	36,155	35,009	32,268	20,429	20,575	20,460
The amission volumes shown in the above table have been						

The emission volumes shown in the above table have been revised, due to the revision of the conversion factor.

54,263

56.024



Future Actions

We will address reduction of CO<sub>2</sub> emission by 2% from the level in FY2006 by the end of FY2010, as explained in the Fourth Environmental Action Plan.

#### Results of the Third Environmental Action Plan

Emission of CO<sub>2</sub> was reduced by 62% at all the Group's sites in Japan.

# CO2 Reduction Activities through Improvement of Logistics

In addition to energy-saving efforts in offices and factories, the FDK Group is committed to reduce CO<sub>2</sub> emissions, in the process of parts and raw materials, from procurement to transportation, use, disposal and recycling of a product. As to delivering of products from suppliers to our customers, CO<sub>2</sub> reduction is globally addressed in our 'business innovation activity' aiming at raising production efficiency.

#### Targets of the Third Environmental Action Plan

#### Contribution to the reduction of greenhouse gas emission

Reduction of CO<sub>2</sub> emission is promoted through improvement of logistics, recycled use of products and packaging materials, and development and purchase of energy-saving products.

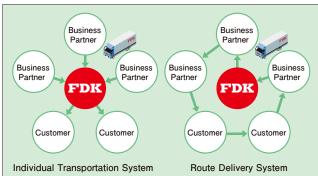


#### CO2 Reduction using Route Delivery System

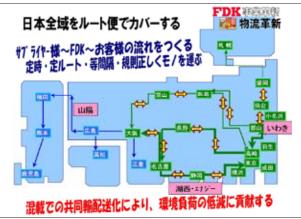
The FDK Group has made efforts to shift from a conventional individual transportation system to a route delivery system in all FDK sites nationwide, and in the Iwaki Plant to deliver or pick up products and materials from business partners to FDK, and then from FDK to customers by making the rounds to multiple sites.

We aim to reduce lead-time in delivering products to customers, as well as reduce the volume of work-in-process items. In addition, the total distance of travel can be reduced, and hence the volume of CO<sub>2</sub> emission can be minimized as well. For further uplifting of loading efficiency, we started since FY2006 "Cooperative transport" (the transportation of parts/products with consolidated service) with the support of shipping companies.

#### **Delivery Routes**



#### Application of route delivery system nationwide



### Uplifting of Loading Efficiency for Truck Transportation via Improving Packages

Previously, cardboard boxes were mainly used for transporting raw materials and products from the FDK Group. With the cooperation of the customers and suppliers, use of returnable containers (TP Trays) is expanding gradually. In order to raise loading efficiency for truck transportation to reduce CO<sub>2</sub> emission, packing materials for products put into a cardboard box have been simplified. This also contributes to the saving of resources.

With the philosophy of 'We don't transport things unnecessarily,' and 'We will transport necessary items only,' transportation volumes are optimized and minimized by promoting TPS (Toyota Production System) with the efforts of the entire FDK Group.



Future Actions After the revised Law Concerning the Rational Use of Energy in April 2006, shippers must submit a 'notification of cargo transportation volume' to the relevant authority, if they transport or consign transportation of cargo related to their businesses at a volume of 30 million ton-kilometer or more annually. The FDK Group is not

applicable to this condition and, hence, submission of the notification is not necessary. However, the FDK Group is determined to pay further efforts to reduce CO<sub>2</sub> emission in its Fourth Environmental Action Plan.

#### Results of the Third Environmental Action Plan

Transportation routes were revised, loading efficiency was uplifted and use of returnable containers was promoted in order to contribute to the reduction of CO<sub>2</sub>.