



# Super Eco-Factories & Offices

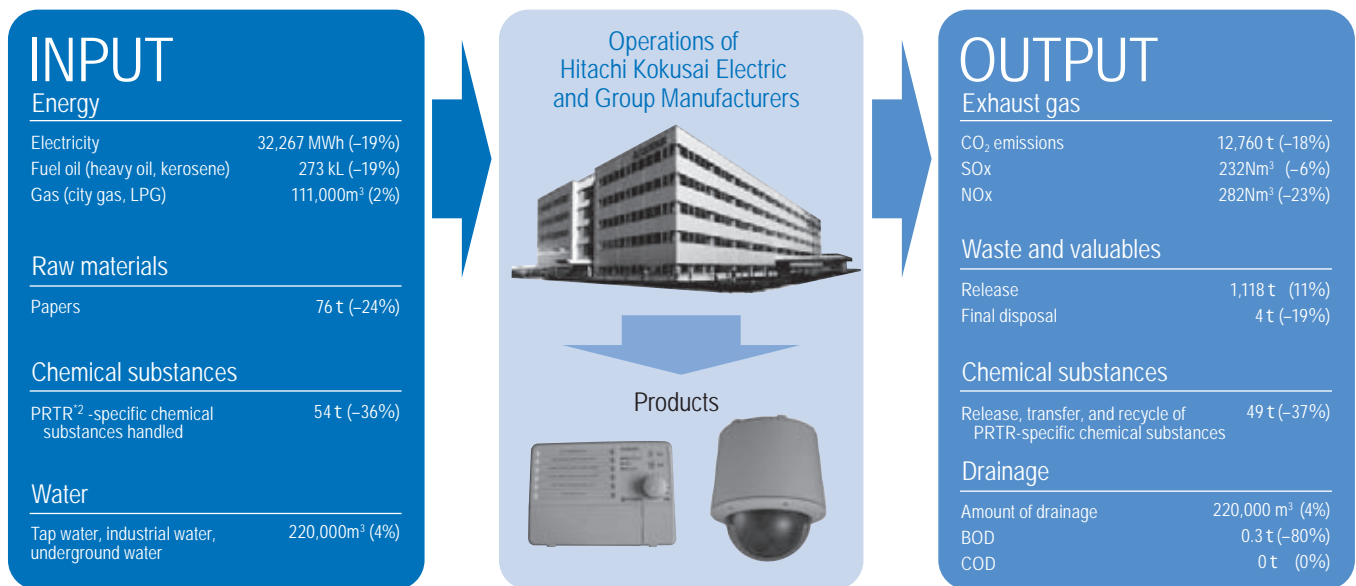
Through the entire production process of products, we work to save energy and enhance facilities in an attempt to prevent global warming and to reduce industrial waste.

## Operations and Environmental Loads

In conducting its operations, our Group expends resources and energy to provide products and consequently discharges CO<sub>2</sub> and wastes. Hitachi Kokusai Electric and its Group Manufacturers\*<sup>1</sup> monitor the inputs and outputs of such elements, and work to reduce hazardous chemical substances and increase energy

efficiency.

Regarding the procurement stage of raw materials and the reduction of environmental impact by our products, see "Promoting CSR Activities in Our Supply Chain" and "Providing Next-Generation Products and Services," respectively.



\*1 Group Manufacturers: YAGI ANTENNA INC., Hitachi Kokusai Denki Engineering Co., Ltd., and Goyo Electronics Co., Ltd.  
<sup>2</sup> PRTR: Pollutant Release and Transfer Register

The values in parentheses show the changes from fiscal 2010.

## Reducing the Volume of Waste Generated

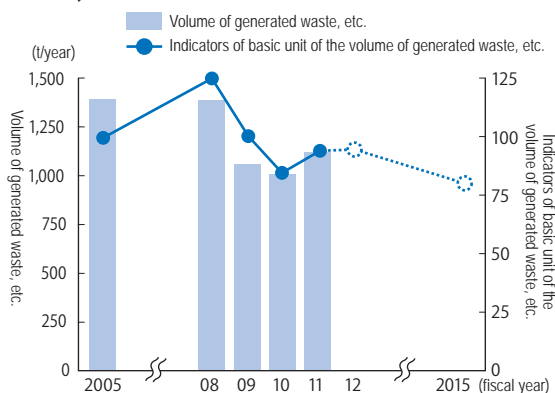
Hitachi Kokusai Electric and Group Manufacturers have set a fiscal 2015 target of suppressing the basic unit of the volume of waste generated by 20% as compared to fiscal 2005, in an effort to reduce the volume of waste, etc. generated as unnecessary products by our production activities that began in fiscal 2011.

Our result for fiscal 2011 was a 7% reduction as compared to the targeted 16% reduction of the basic unit of the volume of generated waste, etc., resulting in failure to achieve the target due to a greater volume of waste caused by the use of wooden crate

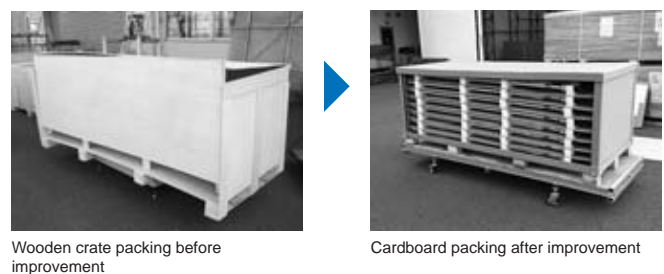
packing materials for products manufactured in countries abroad.

In order to improve the situation, we will implement countermeasures to reduce the weight of packing materials by 10% by switching from wooden crate packing materials to cardboard packing materials, and increase the number of products per finished packing unit by 50% from fiscal 2012, thereby continuing to address the suppression of the volume of waste and other matter generated.

### Transition of the volume and basic unit of generated waste, etc.



### An example of the suppression of the volume of generated waste, etc.



## Prevention of Global Warming (Energy-saving Efforts)

Hitachi Kokusai Electric and Group Manufacturers have set a fiscal 2015 target of reducing the basic unit of CO<sub>2</sub> emissions in production by 10% compared to fiscal 2005, as a means to reduce the energy used at the product manufacturing stage. For fiscal 2011, we had set a target of suppressing the basic unit of CO<sub>2</sub> emissions in production to 4% increase based on the initial prospects for increased production, but actually reduced the basic unit of CO<sub>2</sub> emissions in production by 14%, thus far surpassing the target. This was achieved as a result of implementing our own daylight saving time (e.g., starting work at 8:00 a.m.) at the Hamura Works and Koganei Works, which consume large amounts of electricity, in response to a lack in power caused by the Great East Japan Earthquake, and for the effects afforded by taking holidays in rotation, reducing lighting power by using desktop LED light stands, and other measures.

As efforts regarding facilities in fiscal 2011, we implemented the renewal of high-efficiency air-conditioning equipment, switched to high-frequency lighting units, introduced a power monitoring system, and took other measures. With regard to operations, we sympathize with the National Campaign Against Global Warming promoted by the government from 2005, implemented “Cool Biz” and “Warm Biz” at all our business establishments, and continued our participation in the “Light Down Campaign.” And in order to enhance our awareness of saving power in fiscal 2011, we prepared and distributed a promotional poster for display at all our business establishments.

### Case examples of power saving measures

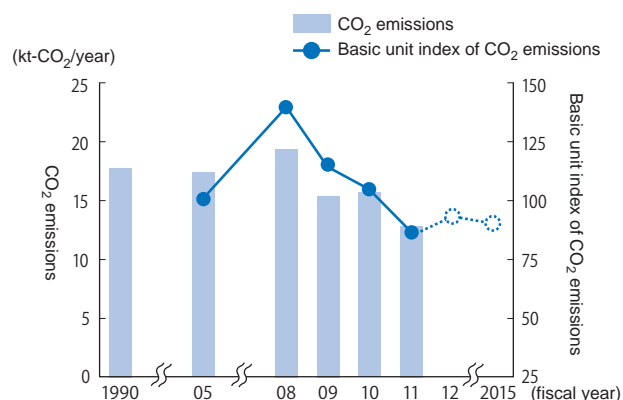


An office before introducing desktop LED light stands



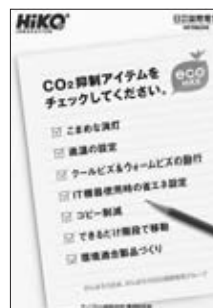
An office after introducing desktop LED light stands

### Changes in CO<sub>2</sub> emissions and the basic unit of CO<sub>2</sub> emissions in production



N.B. For the CO<sub>2</sub> emission factor used in calculating CO<sub>2</sub> emissions, we used the factors employed by the various power companies as announced by the Ministry of the Environment. We used 0.36 as the CO<sub>2</sub> emission factor in and after fiscal 2010, as used by the Hitachi Group.

### Power-saving promotional poster



## PRTR-specific Chemical Substances

Under the “Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law)” enacted in April 2001, any establishments that handle a certain quantity of targeted chemicals or more must now report it to the authorities concerned. Along with the revision in fiscal 2010 of chemicals subject to the PRTR Law, the major chemicals subject to the law that are handled by our company and other Group Manufacturers are those used for the surface processing of printed substrates and those contained in fuels. Regarding such chemicals as related to our fiscal 2011 results, we have duly managed and reported the quantity of those chemicals handled.

### PRTR-specific chemical substances actually released and transferred

(Sum of the Company and Group Manufacturers) (in kilograms per year)

Chemical substance	Quantity handled	Release	Transfer	Consumption	Removal	Quantity recycled
Ferric chloride	48,030	0	0	0	0	48,030
Xylene	1,436	28	11	1,398	0	0
1,2,4-Trimethyl benzene	1,901	0	0	1,901	0	0
Toluene	184	131	34	18	0	0
Lead	425	0	8	368	0	50
Hydrogen fluoride and its water-soluble salts	686	149	537	0	0	0
Methylnaphthalene	1,423	0	0	1,423	0	0

N.B. Substances significantly handled are shown above