

Plant and Office Initiatives for the Environment

The Tokyo Electron Group is proactively undertaking various initiatives at each of its business sites to reduce environmental impact, including measures to help prevent global warming, conserve resources, reduce waste, and strictly manage substances. Some of the activities at manufacturing sites (plants) and offices are discussed below.

Measures to Help Prevent Global Warming

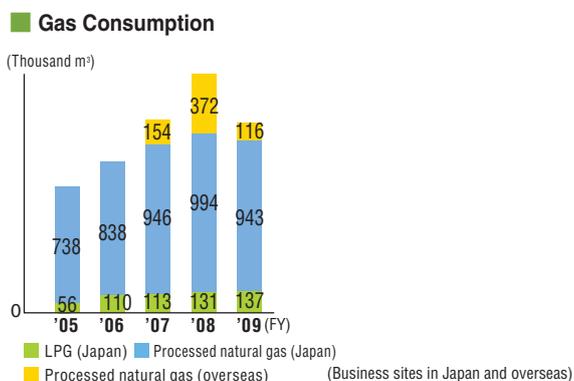
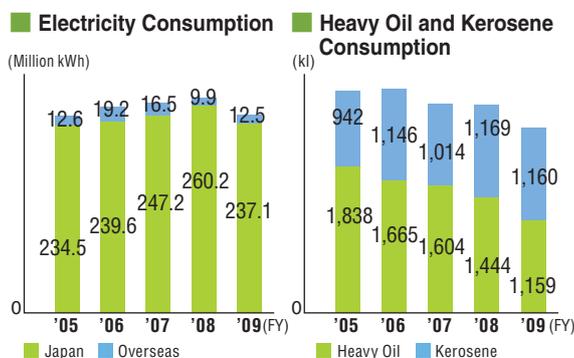
Reducing Energy Consumption

The TEL Group is working to reduce energy consumption in accordance with the provisions of the Law concerning the Rational Use of Energy. Each business site has established specific targets for air conditioning temperature settings and for cutting power consumption for lighting and office equipment; and they are taking active measures to reduce energy consumption. Tokyo Electron U.S. Holdings, Inc. has been purchasing green electricity since 2001. As of FY2009, the company has purchased approximately 57 million kWh of power, resulting in an approximate 3,500-ton reduction of CO₂. Manufacturing sites in Japan are also taking measures to reduce energy consumption for cleanrooms, which account for a substantial portion of total energy usage. One example is the effort to conserve energy at the Tohoku Plant, which has reduced cleanroom energy consumption by approximately 40%, while maintaining the same degree of cleanliness. We have adopted a policy of further accelerating such measures to fulfill our environmental activity commitments.

Energy Consumption and CO₂ Emissions

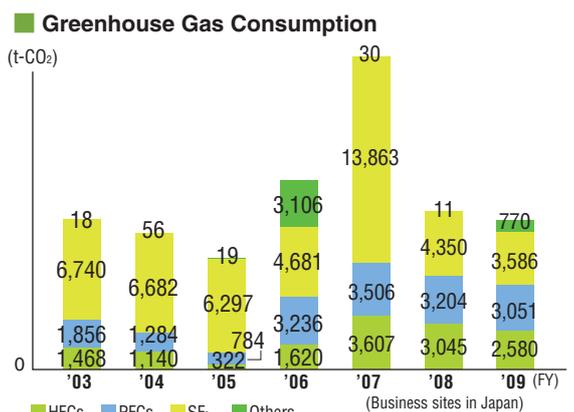
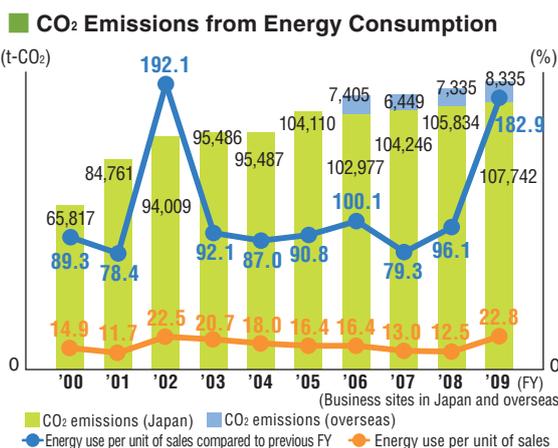
For our energy consumption in FY2009, electricity usage declined by 7.6% and heavy oil usage dropped by 19.7%, thanks to energy conservation measures conducted in all regions and a decrease in production activities. CO₂ emissions from energy consumption, however, increased by 2.6% because of a change in the electric power coefficient. Unfortunately, CO₂ emissions per unit of sales* did not achieve the target of a 1% year-on-year reduction because of the decrease in net sales. We remain committed to reinforcing our energy-saving measures.

* Energy consumption per unit of sales = Energy consumption ÷ Sales



Reducing the Use of Greenhouse Gases Other than CO₂

In developing our manufacturing processes and evaluating equipment (e.g., dry etching and cleaning processes) we use hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆), which are greenhouse gases. In FY2009, we used 9,987 tons of greenhouse gases (CO₂ equivalent), which is a slight decline from the 10,610 tons used in FY2008.



Initiatives to Conserve Resources

Our Approach to Resource Conservation

The TEL Group is working to minimize our use of limited resources. Specifically, we are reducing the use and purchase of copier paper and stationery and implementing green procurement practices, giving preference to environmentally-conscious products.

We have replaced printer toner cartridges with ones made from recycled materials and cooperated with the manufacturers in the recovery of end-of-life cartridges. At some offices, we have established an intranet-based system, under which extra stationery can be used by other departments, thereby promoting the reuse of resources across the organization. In addition, a proactive effort is made to donate excess office supplies, shelves, and the like to local governments and non-profit organizations. Continuing our donations from 2008, in March 2009 the Group donated 10 used laptops to Aizu Technical High School and to Kitakata Technical High School, which are member schools of the Aizu Craftsmanship Training Project in Japan.



Ceremony for donation of laptops

Efforts to Reduce the Use of Paper

We are making a group-wide effort to reduce paper consumption. Our employees are encouraged to practice duplex copying, to copy at a reduced size, and to digitize information and internal circulars. As a result, the Group's total use of copier paper in FY2009 dropped dramatically year-on-year by over 60%, equivalent to about 50 million sheets. It is thought that one of the major factors behind the decrease is the reduction in the amount of documents needed, corresponding to the decline in shipments.

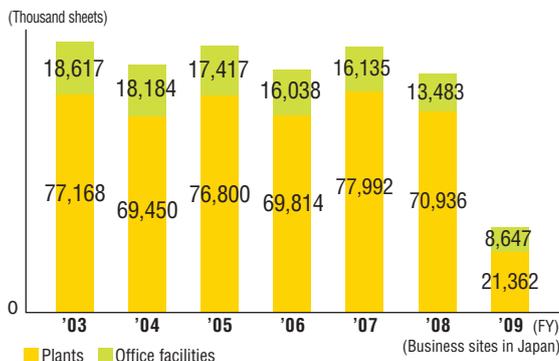
We are encouraging the use of environmentally-friendly paper and conducting activities that lead to resource conservation by introducing products such as paper cups made from a bamboo-derived material. We are also working to raise employee awareness so that they use fewer paper cups and bring their own cups to work.

Moving forward, we will continue to reduce the amount of copier paper used and also minimize paper-based records and accounting forms to further reduce our total paper consumption.



A poster encouraging employees to use their own cups

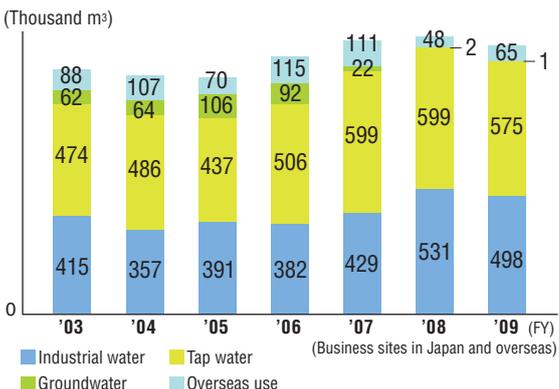
Copier Paper Consumption



Efforts to Reduce Water Consumption

At our manufacturing plants, various measures are underway to reduce water consumption. For example, the plants have installed a water re-circulating system to reuse cooling water. They have also installed automatic faucets in restrooms and other facilities. These touch-free automatic faucets prevent water waste by automatically shutting off the supply when the user's hands are removed from the sensor range. In FY2009, water consumption fell by approximately 3% because of lower production.

Water Consumption



Initiatives for Reducing Waste

Our Approach to Waste Reduction and Recycling

The TEL Group strives to reduce and recycle waste. We work according to our firm policy of minimizing waste first and foremost, recycling whatever waste is generated to the greatest extent possible, and disposing of non-recyclable waste in a proper manner.

In recent years, landfill costs have surged due to a shortage of sites, which means that waste reduction also leads to cost reduction. We separate recyclable waste from non-recyclables, use new manufacturing processes which do not involve waste generation, manage the qualifications of contract waste disposal companies, periodically review final waste disposal practices, and also focus on educational activities related to the sorting of waste and other topics. For instance, the department that handles single-wafer deposition systems at our Yamanashi Plant adopted the slogan of “Let’s become sorting experts” and worked to make employees aware of the costs of processing waste by preparing a table with sorting standards and the costs of processing waste (e.g., general waste, mixed paper, classified documents, and plastic bottles) as well as the sale prices of eleven types of valuable materials (e.g., high-quality paper and cardboard), while also preparing materials using animations to explain sorting techniques. Some business sites have begun using electronic manifests to ensure proper management of waste materials.

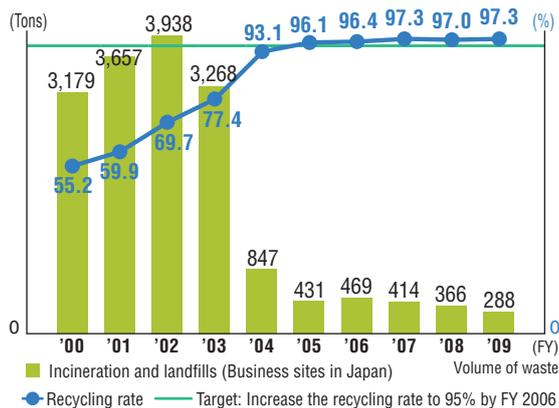


Volume of Waste Generated, Recycling Rates, and Classification of Waste

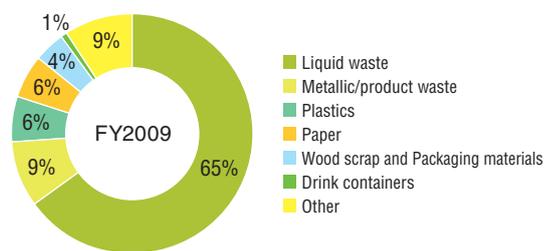
In FY1999, the TEL Group set the target of increasing its average recycling rate to 95% by FY2006. In FY2009, as a result of recycling measures, the recycling rate was 97.3%; and compared to the previous year incinerated and landfill waste fell by 21% and total waste (including recycled waste) declined by 13%. The largest percentage of waste generated by the Group comes from liquid waste resulting

from the chemicals used in the product-development and evaluation processes, but 99% of that liquid waste is currently being recycled.

Recycling Rate and Generation of Waste



Breakdown of Waste



Zero Emissions

We define plants where less than 2% of waste generated is incinerated or put into landfills as “zero emission plants” and encourage all plants to achieve zero emissions. In FY2009, all of our manufacturing plants strived to attain this goal; and they achieved zero emissions.

Recycling Rate of Waste for the Group’ Plants in Japan

Plants	Recycling rate
Tohoku Plant	99.2%
Miyagi (Matsushima) Plant	98.4%
Sagami Plant	99.4%
Yamanashi Plant (Hosaka area)	100%
Yamanashi Plant (Fujii area)	100%
Kansai Technology Center	100%
Saga Plant	99.9%
Koshi Plant	100%
Ozu Plant	100%

Note: Rate of recycling of industrial waste (including industrial waste subject to special control)

Management of Chemical Substances

Our Approach to the Management of Chemical Substances

The TEL Group uses chemical substances mainly in developing and manufacturing products. When developing products, we sometimes adopt new chemical substances that have not been used before, or use chemical substances in a way that is different from their traditional usage. In such cases, we look closely at the development facilities and methods, assess the environmental and operational risks associated with the use of the substances, and implement necessary measures before using the substances. We are also replacing dangerous and harmful chemicals used in the manufacturing process with safer substances.

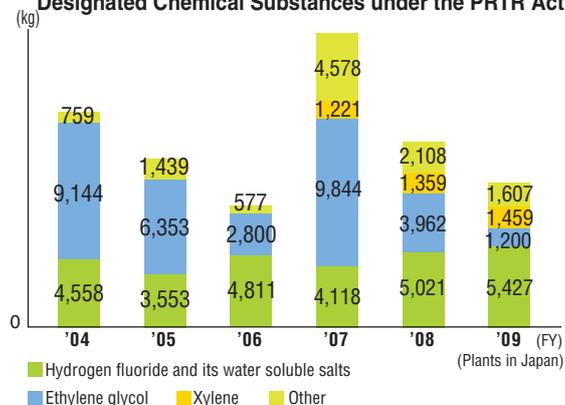
Compliance with the PRTR* Act

In accordance with the provisions of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act), we rigorously control the specific chemical substances regulated under the PRTR Act and continually identify the use and emissions of those

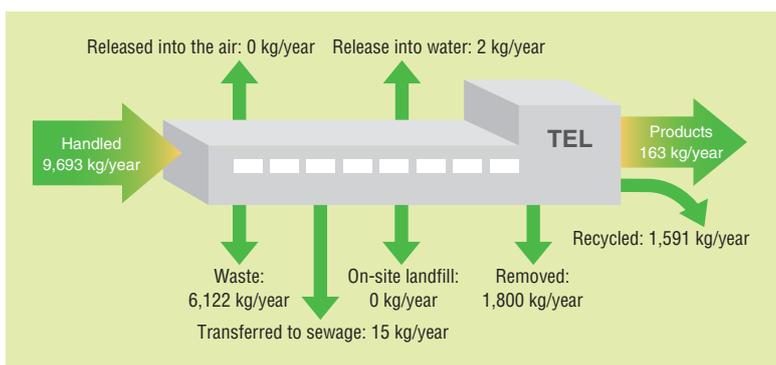
substances. Among the substances regulated under the PRTR Act, we use a large amount of hydrogen fluoride, mainly for cleaning test wafers. The hydrogen fluoride waste is either disposed of by an external company or we dispose of it in an approved manner within our premises. Ethylene glycol, which is primarily utilized as a refrigerant for cooling water, is another heavily used regulated substance. Moving forward, we will continue to appropriately monitor risks, while advancing our response to the PRTR Act. We will continue to properly manage all risks associated with the use of chemical substances.

*PRTR: Pollutant Release and Transfer Register. Under the PRTR system, the use of chemical substances that may be hazardous to human health and the ecosystem, their release into the environment, and transfer (contained in waste) outside of the business premises are identified, tabulated, and disclosed.

Handling of Substances Regulated as Class I Designated Chemical Substances under the PRTR Act



Material Balance of Chemical Substances Regulated under the PRTR Act



PCB Storage

Based on the Law Concerning Special Measures against PCB Waste, we report on the storage and disposal of waste containing polychlorinated biphenyl (PCB) to the prefectural governor on an annual basis. The TEL Group presently stores two waste transformers and four waste capacitors that contain PCB in a strict and secure manner.

In Focus

Risk Communication with Local Communities

All of our business sites that use chemicals conduct rigorous management to prevent leaks and other mishaps. We believe that it is extremely important to gain the understanding of residents of communities located near those business sites, with regard to our activities, in order to give them peace of mind.

The Tohoku Plant held a community meeting to report on environmental issues on October 31, 2008, attended by a total of 40 people, including residents living in the vicinity of the plant (such as representatives of neighborhood associations) and representatives of local businesses and administrative agencies. The meeting was intended to share information concerning environmental initiatives and build partnerships for developing mutual understanding, as part of a joint effort to help preserve the environment. After an explanation that provided them with an overview of company, the participants toured plant facilities (including the liquid waste processing building) and observed the manufacturing lines. Later, the participants had the opportunity to make comments and express their opinions. One participant said: "I feel better knowing that the smoke coming from the cooling tower is actually steam"; while another commented: "I am grateful that Tokyo Electron Tohoku established a site at Mizusawa-Esashi and is contributing to the economic development of the community."

