

Hitachi Group set itself the goal of making all IT devices, system service products and household electric appliances environment-friendly by the end of fiscal 2010

Tokyo, December 10, 2003 --- Hitachi, Ltd. (TSE:6501) today announced that Hitachi Group has now set itself another environmental target. That is to make its IT devices such as magnetic disc devices and servers, system service products comprising hardware and software, and digital media products and household electric appliances, which include plasma TVs, PCs and white goods, environment-friendly (hereafter referred to as eco-products). The plan calls for 80 percent (*1) of its products to be “eco-products” by the end of fiscal 2006 and all products by the end of fiscal 2010.

Hitachi Group has introduced the “Design for Environment” that gives due consideration to minimizing as much as possible the impact on the environment at each stage of the product cycle (materials, production, distribution, use, recovery, disassembly and proper disposal). Based on the results of its evaluation, we define as “eco-products” those products that lessened environmental load in comparison to our previous models or those that are equally environment-friendly or environment-friendlier than the products of other companies in the industry.

To be more precise, “eco-products” refers to environment-friendly hardware products that do not use parts containing toxic chemicals, such as lead and hexavalent chromium, meet the requirements for top-runner products (*2) under the energy conservation law (*3) and are lightweight and easy to disassemble in order to reduce the environmental burden when disposed of. It also includes system designing and development that are aimed at lessening, as much as possible, the environmental load by cutting down CO₂ emissions through reduced power consumption, and system service products using environment-friendly hardware and modes of transport.

The Hitachi Group has set itself the goal of making 60 percent of its products “environment-friendly” by end of fiscal 2003, and we expect to reach our goal by the end of fiscal 2003 as 630 products comprising 2,251 models, or 51 percent of the Group’s entire line of products, were already designated as “environment-friendly products” at the end of November 2003.

In view of this, we decided to set a target of making 80 percent of IT devices, system service products and digital media and household electric appliances environment-friendly by the end of fiscal 2006 and all products by the end of fiscal 2010.

For starters, with regard to IT devices, such as magnetic disc devices and servers, and digital media products and household electric appliances, which include plasma TVs, PCs and white goods, the Group intends to attain the goal by reducing product weight with fewer parts, cutting down power consumption, introducing recycled plastics, ensuring the use of non-lead solder and releasing longer-life products into the market.

Then with respect to system service products that comprise hardware and software, the goal will be attained by offering environment-friendly products that reduce power consumption to lessen CO₂ emissions, using environment-friendly equipment, including those purchased from other companies, and distributing products using transport which least impacts the environment, and proactively proposing and building for customers systems that reduce the environmental load.

Concerning IT products, digital media products and household appliances, the Hitachi Group introduced for the first time “product eco-efficiency,” an index showing how much value is added while curbing environmental impact, as a calculating tool for the “environment-friendly design assessment,” making it possible to evaluate its products more quantitatively. With respect to the environmental assessment of system service products, the Group started applying the SI environment assessment program (SI-LCA) (*4), which evaluates the environmental load (CO₂ emission volume) of products throughout their entire life cycle from product design and development to disposal. This program also facilitates assessment of costs.

The Hitachi Group will attend the “Eco-Products Exhibition” an eco-products and service exhibition to be held at “Tokyo Big Site” for three days, December 11 (Thu) – 13 (Sat), 2003, and plans to showcase advanced environmental technologies. These will include direct methanol fuel cells for portable devices and dye sensitized solar cells, 15 products that will serve as examples of Hitachi’s “environment-friendly products”, and the calculation results of the “product’s environmental efficiency” of 6 products including air conditioners and an environmental information display system using the world’s smallest class non-contact IC chips, the so-called “μ-chip”.

The Hitachi Group intends to continue producing environment-friendly, clean products in the future.

- **Main products on display at the “Eco-Products 2003”**

(1) Direct methanol fuel cells for mobile

Direct methanol fuel cells for portable devices generate electricity directly from methanol, water and oxygen, and are able to supply power for notebook-sized personal computers for 8 – 10 hours continuously with one refueling. The newly developed hydrocarbon electrolyte membrane reduces the loss of methanol fuel to one-tenth and realizes longer battery life with the new catalysis technology that prevents nanoparticles from coagulating.

(2) Dye-sensitized solar cells

Dye-sensitized solar cells can take any free-form shape, and will be used to produce a lightweight, film-like solar battery that is now under development. The electrodes in these batteries are coated with a porous titanium oxide membrane with solar energy-absorbing dyes adsorbed on its electrolyte-contacting surface. When sunlight excites electrons in the dyes, this special layer results in charge separation on the surface of the titanium oxide, thus generating electricity for the battery.

(3) Room Air conditioner (RAS-E28S)

The RAS-E28S air conditioner, unlike conventional air conditioners that circulate clean air inside the room, is the world’s first room air conditioner (*5) equipped with an air supply function to let in fresh outside air and an exhaust air function that discharges the stale air to the exterior, creating a clean, fresh living environment. In addition, its new airflow control with the “twin airflow” curbs updraft of the warm air when the air conditioner is used for heating, offering comfort in every corner of the room. In spite of its high power with the PAM (*6) vector control and SS scroll (*7), the RAS-E28S achieved the highest level of energy conservation.

(4) Environmental information display system

The environmental information display system uses the “object link” that displays linked information by simply placing an object containing the μ -chip, world’s smallest class of non-contact IC chips, on the sensor. During the exhibition, PET bottles that show instructions on separated collection and a remote control for an air conditioner that displays temperatures, electric charges and cleaning methods will be shown.

(*1) The proportion of eco-products in total sales of the targeted products

(*2) The official name is the “Law concerning the Rational Use of Energy”.

(*3) The products having a level of energy consumption efficiency that exceeds most energy-efficient products presently commercialized. For 18 specific products including electric home appliances and automobiles, for which improved energy consumption efficiency is considered important, the energy consumption efficiency standards (top-runner value) were established for each category such as capacity and size of equipment, and the degree to which these standards are achieved is assessed for each target fiscal year.

(*4) System Integration-Life Cycle Assessment (registered trade name applied for)

(*5) As of December 10, 2003

(*6) Pulse Amplitude Modulation

(*7) Smooth Speed charge

About Hitachi, Ltd.

Hitachi, Ltd. (NYSE: HIT), headquartered in Tokyo, Japan, is a leading global electronics company, with approximately 340,000 employees worldwide. Fiscal 2002 (ended March 31, 2003) consolidated sales totaled 8,191.7 billion yen (\$68.3 billion). The company offers a wide range of systems, products and services in market sectors, including information systems, electronic devices, power and industrial systems, consumer products, materials and financial services. For more information on Hitachi, please visit the company's Web site at <http://www.hitachi.com>.

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