Design/ Developme

About This Report

Procuremen

Production

Packaging/ Transportation

Usage

Disposal/ Recycling

Recovery/Recycling of Used Home Appliances at a Specialized Recycling Plant

In 1999, the Mitsubishi Electric Group began operations of the industry's first home appliance recycling plant (Hyper Cycle Systems Corporation (HCS)), and has recycled 940 kt*1 of appliances by the end of fiscal 2021. In fiscal 2021, we recycled 39 kt*2 of recovered appliances in the four categories of home appliances that are required to be recovered and recycled under Japan's Home Appliance Recycling Law*3.

- *1 Total weight recycled by Mitsubishi Electric and other manufacturers
- *2 Weight of the four categories of Mitsubishi Electric appliances that have been recycled or otherwise processed
- *3 Air conditioners, televisions (CRT, LCD and plasma), refrigerators/freezers, and washing machines/tumble dryers.



Mitsubishi Electric holds Environmental Design Technology Seminars to showcase technologies developed at its recycling centers and see how they can be applied to everyday product design. Developing technologies for sorting materials recovered from end-of-life home appliances and techniques applicable to recycled materials also increases the amount of recycled material that can be used in our products.

Recycling Personal Computers

Mitsubishi Electric promotes recycling of end-of-life personal computers and monitors. In fiscal 2021, we recovered a total of 5,960 office and home computers, with recycling ratios above statutory targets*4.

Although preventing data leaks from hard drives during disposal of personal computers is essentially the user's responsibility, our subcontracted recycling agents do all they can to prevent data leaks, for example punching holes in hard drives and exposing them to strong magnetic fields to ensure physical and magnetic destruction. For office computers, we offer a paid service where customers can ask for all data to be erased by specialized software before recovery.

*4 Desktop computers: 50% or more Notebook computers: 20% or more CRT displays: 55% or more LCD displays: 55% or more

Closed-Loop Recycling of Plastic

What Is the Mitsubishi Electric Group's "Closed-Loop Recycling" Initiative?

Since 2010, the Mitsubishi Electric Group has been fully implementing "closed-loop recycling," in which plastic recovered from used home appliances is reused in Mitsubishi Electric's new home appliance products. In this recycling system, it is important to collect as much plastic without foreign matter as possible from products composed of diverse materials.

Hyper Cycle Systems (HCS), a home appliance recycling plant, and Green Cycle Systems (GCS), a plant which sorts plastic, play the main role in this initiative. HCS first disassembles used home appliances, which are then crushed with machines. Among them, selected plastics are then sent to GCS, which sorts different types of plastic. GCS currently recycles approximately 80% of the mixed plastic it procures into "high-purity plastic" at a level of quality equal to virgin materials. In these processes, the Mitsubishi Electric Group's various technologies are utilized to achieve high-precision separation. We are also developing new technologies as needed.



ightarrowFor recycling of home appliances, please refer to the websites below.

Defining a Recycling-Based Society

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/defining/index.html

Hyper Cycle Systems: Reclaiming Resources from End-of-Lifecycle Products

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/hypercycle/index.html

Green Cycle Systems: Refining Old Plastics into Industrial-Grade Materials

https://www.MitsubishiElectric.com/en/sustainability/environment/ecotopics/plastic_sp/greencycle/index.html