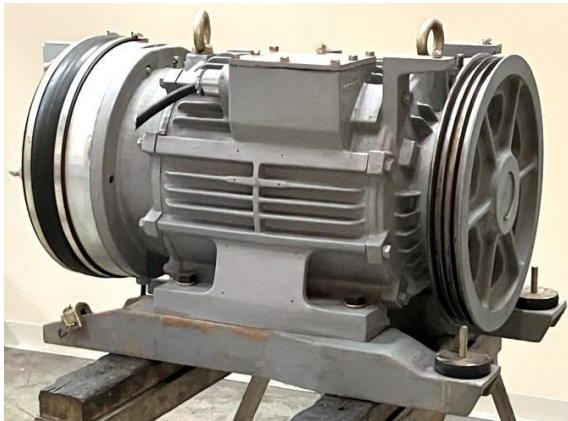


## Hitachi Constructs and Commences Operation of Elevator Permanent Magnet Motor Recycling Network

Hitachi promotes resource recycling as part of its PLEDGES sustainability strategy based on its new management plan "Inspire 2027"



Permanent magnet motor traction machine to be collected and recycled

Tokyo, December 23, 2025 — Hitachi, Ltd. (TSE: 6501, hereafter **Hitachi**), Hitachi Building Systems Co., Ltd. (hereafter **Hitachi Building Systems**, part of Hitachi's Connective Industries Sector (hereafter **CI Sector**)), Nichiwa Service, Ltd. (hereafter **Nichiwa Service**) have constructed a network for recycling the permanent magnet motor traction machines that are replaced during modernization work on Hitachi's elevators as a part of their efforts to promote a circular economy, which is a part of the **PLEDGES**<sup>\*1</sup> sustainability strategy formulated based on the Hitachi Group's new management plan **Inspire 2027**. The network began operating in Japan this December. Through this initiative, these companies contribute to the reduction of environmental impact by promoting the recycling of rare earth and other resources.

<sup>\*1</sup> Hitachi's new sustainability strategy "PLEDGES" news release dated June 27, 2025  
<https://www.hitachi.co.jp/New/cnews/month/2025/06/0627.html>

Hitachi's CI Sector has a large number of products for a broad range of industries, and it also has a wealth of experience and knowledge in the field of recycling. Accordingly, Hitachi's CI Sector utilizes digital technologies to innovate in the field of resource circulation to preserve the global environment and maximize customer lifetime value while placing the circular economy at the core of its business in the future as detailed in Inspire 2027.

In this situation, as part of Hitachi's CI Sector, Hitachi Building Systems has transformed elevator and escalator modernization, enabling elevators and escalators to be digitalized assets equipped with the cutting-edge technologies in light of modernization being an important business that can enhance maintenance quality and operational efficiency and efficiency of operations through the provision of **HMAX for Buildings: BuilMirai** that embodies Lumada 3.0. By supporting the introduction of rare earth recycling technology and dismantling technology, Hitachi's Water & Environment Business Division (part of CI Sector) has been the vanguard of the Hitachi Group and a pioneer in the industry, leading the commercialization of processes for recycling permanent magnet motor traction machines for elevators (the amount of collection of which will increase in the future) leveraging its knowledge of recycling of products for domestic and industrial uses. At the same time, Hitachi will accelerate its contribution to preserving the global environment and creating value for people and society, as well as its own sustainable

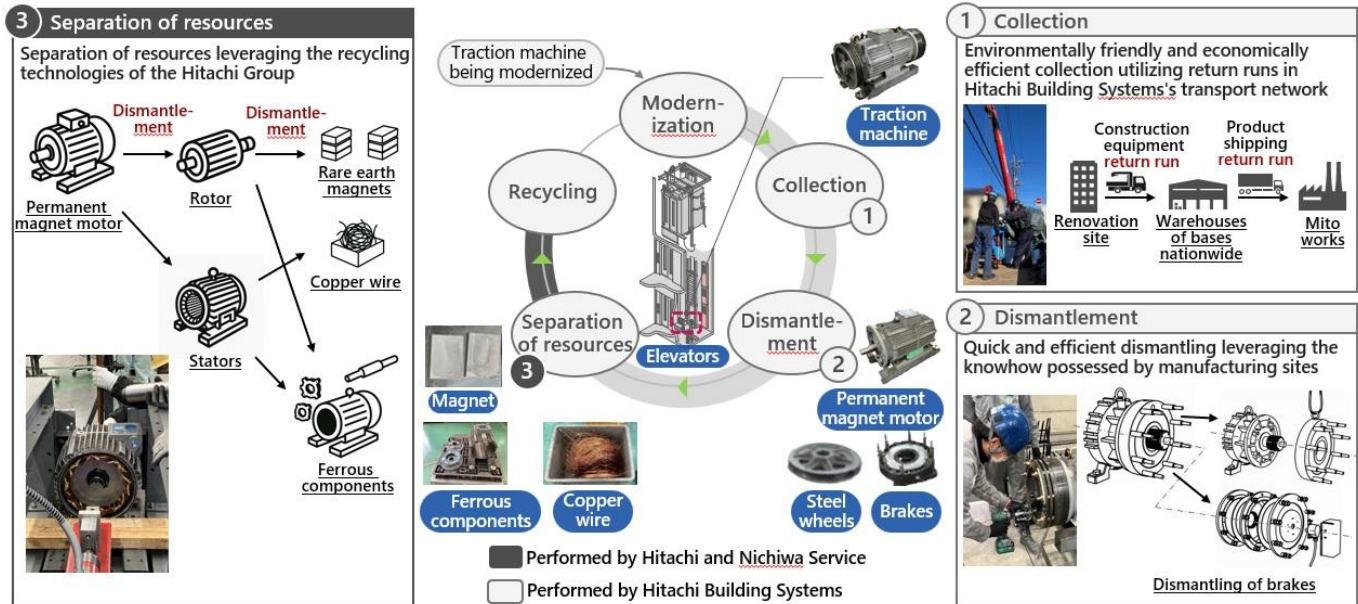
growth by expanding the range within which these recycling technologies can be applied to include other industrial motors handled by CI Sector companies.

Hitachi has used permanent magnet motors in its manufacturing of traction machines for machine room-less elevators since 1999. Now, the time to modernize<sup>\*2</sup> its initial products is arriving. Magnets for permanent magnet motors have a wide range of applications beyond elevators, including in electric vehicles, power generators, and home appliances. It is expected that demand for these motors will continue to grow in many fields in the future. Accordingly, from an environmental impact reduction perspective, it is necessary to increase the recycling of discarded magnets. However, there has been little progress in the recycling of large industrial machine motors due to issues regarding collection and recovery methods and dismantling technologies, even as the recycling rate of small motors for hard disc drives and home air conditioners is high.

<sup>\*2</sup> In Japan, the legally defined depreciation period for elevator is 17 years.

Under its new Inspire 2027 management plan, Hitachi aims to grow sustainably while contributing to a harmonized society where the environment, wellbeing and economic growth are in balance. To realize this, Hitachi developed its PLEDGES sustainability strategy, and it is promoting a circular economy under this strategy. In this network, the three companies have constructed a system for collecting permanent magnet motor traction machines that are replaced during the modernization of Hitachi elevator, recovering resources from them, and recycling them. To be specific, Hitachi Building Systems collects permanent magnet motors removed from traction machines during modernization work. Hitachi and Nichiwa Service dismantle these permanent magnet motors and demagnetize them to recover the magnets. These removed magnets are recycled by specialized manufacturers outside the Hitachi Group. The magnets are used as recycled magnets. Copper wire and ferrous components are also separated for recycling.

It is currently estimated that around 80 tons of permanent magnet motor traction machines will be recycled per year (the total weight of the motors). It is expected that this will grow to approximately 650 tons a year due to the increase in the number of elevator products being modernized in the future. In this context, Hitachi will enhance its handling capabilities. Moreover, by including the industrial motors handled by the Hitachi Group in the recycling program, Hitachi aims to reduce waste, collect resources to recycle, and increase the demand for recycled materials.



Recycling Network for Permanent Magnet Motor Traction Machines

**1. Environmentally friendly and economically efficient collection utilizing return runs on Hitachi Building Systems' transport network**

Traction machines are efficiently collected from elevators equipped with large industrial machine motors using the supply chain of Hitachi Building Systems. Progress in the recycling of traction machines had been stagnant due to the difficulty of collecting the resources for recycling. The efficient use of return runs for product deliveries limits the increase in environmental impact and avoids the necessity of increasing the number of transportation trucks.

**2. Quick and efficient dismantling leveraging the knowhow possessed by manufacturing sites**

Permanent magnet motor traction machines include brake devices, steel wheels and other components. To quickly and efficiently dismantle them, it is essential to understand their structure. Accordingly, a worksite specialized in the dismantling of permanent magnet motor traction machines will be set up at the Mito works of Hitachi Building Systems so that they can quickly dismantle machines with complicated mechanisms, leveraging the knowhow of skilled technicians.

**3. Separation and recovery of resources using the recycling technologies of the Hitachi Group**

The rare earth magnets in permanent magnet motors are embedded in the motor's rotor. To remove them and separate and recover these resources, technical skills, such as the ability to demagnetize them and remove bonding agents, are necessary. With expertise in resource separation, Nichiwa Service developed a technology for removing these magnets tailored to the internal structure of the motor with technical support of Hitachi's Water & Environment Business Division, which possesses knowledge regarding the recycling of products for home and industrial use that contain rare earth resources.

Hitachi's CI Sector, to which Hitachi Building Systems belongs, focuses on "Integrated Industry Automation," which aims to expand "HMAX Industry" into growth industries horizontally. HMAX Industry provides digital services that combines data from an abundant installed base of products (digitalized assets), domain knowledge, and advanced AI. As part of the CI Sector, Hitachi Building Systems aims to drive innovation for frontline workers and contribute to improving people's well-being through the delivery of "HMAX for Buildings: BuilMirai" that embodies Lumada 3.0.

**Hitachi Building Systems Website**

<https://www.hbs.co.jp/>

**Nichiwa Service Website**

<https://www.nichiwa-hitachi.co.jp/>

**Hitachi Sustainability**

<https://www.hitachi.com/ja-jp/sustainability/>

**Hitachi Building Systems Sustainability**

<https://www.hbs.co.jp/sustainability/>

**About Hitachi, Ltd.**

Through its Social Innovation Business (SIB) that brings together IT, OT(Operational Technology) and products, Hitachi contributes to a harmonized society where the environment, wellbeing, and economic growth are in balance. Hitachi operates globally in four sectors – Digital Systems & Services, Energy, Mobility, and Connective Industries – and the Strategic SIB Business Unit for new growth businesses. With Lumada at its core, Hitachi generates value from integrating data, technology and domain knowledge to solve customer and social challenges. Revenues for FY2024 (ended March 31, 2025) totaled 9,783.3 billion yen, with 618 consolidated subsidiaries and approximately 280,000 employees worldwide. Visit us at [www.hitachi.com](http://www.hitachi.com).

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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