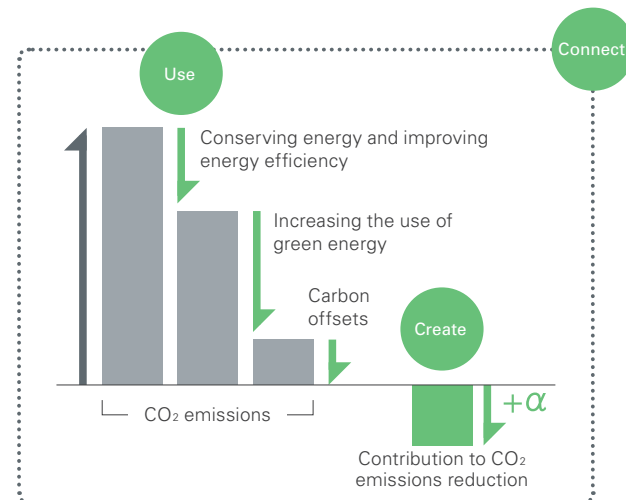


# Green Transformation

**Create green value!**  
We take on challenges to contribute to a global society where the nature and people are able to coexist in harmony.

## What is Green Transformation?

Since Industry 1.0, the lives of humans have been enriched by technology and energy. However, the global environment has become polluted. Now that the pollution has reached a level where the previous environmental initiatives are far from sufficient, Musashi will implement green strategies to contribute to increasing the harmony between our lives and Earth through innovation using technologies as expressed in Our Purpose.



## Musashi Green Strategy

- Create**
  - Green Products
    - Creating products that contribute to the reduction of CO<sub>2</sub> emissions
    - Providing products and services with value for the natural environment and other added value
- Use**
  - Green Operation
    - Improving energy efficiency and minimizing consumption
    - Using renewable energy for all production processes
- Connect**
  - Green Communication
    - Making all activities carbon neutral
    - Commitments for local communities and society

## Create

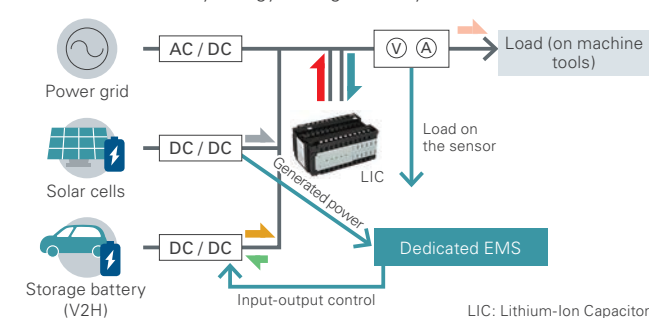
### Green Products

We are working to achieve GX through a combination of a shift to EVs in our core business **P17** and new businesses.

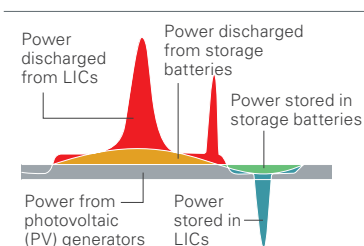
At our production sites with high electric load, the use of only privately generated power makes it difficult to maintain the balance between power demand and supply. We also face issues that cannot be solved only through energy conversion.

Momentary load at industrial facilities is more than ten times the power generated by solar cells, which forces us to rely on grid power. The alleviation of momentary load using FEMS with lithium-ion capacitors **P24** enables plants to shift peak loads, reduce electricity costs through demand control, use renewable energy, and operate for long periods of self-sustained operations during power outages, contributing to the achievement of carbon neutrality at production sites.\* We conducted a demonstration experiment at our plant in 2021. Additionally, AI-based autonomous mobile robots (AMR) **P24** improve productivity and also aid the transition from gas- or gasoline-driven carriers to electric ones. These tasks are faced by all manufacturers, and we are developing initiatives to deliver solutions for these tasks to manufacturing sites around the world.

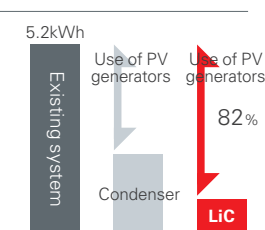
### \*FEMS: Factory Energy Management System



### Conceptual rendering of load control enabled by the introduction of LICs



### Improvement of renewable energy utilization



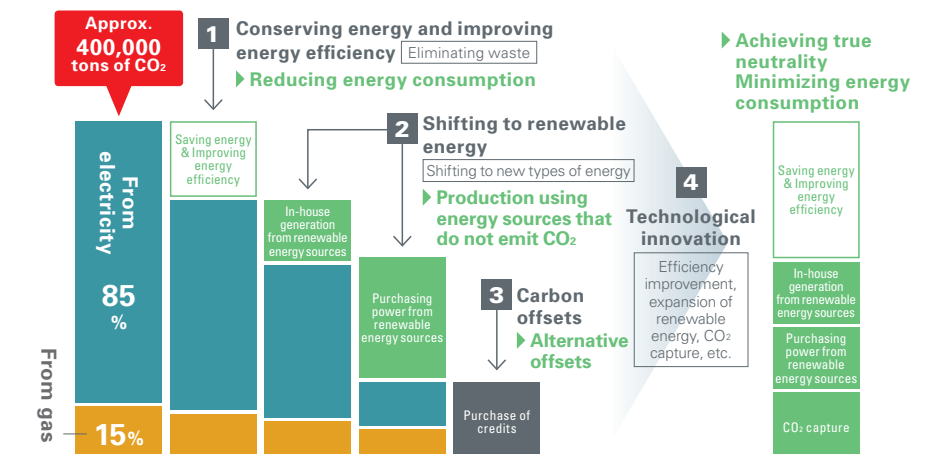
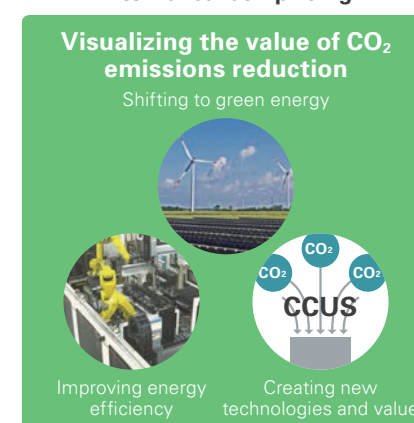
## Use

### Green Operation

From the perspective of CO<sub>2</sub> emissions, electricity is 85% of the energy used in Musashi's production activities. The remaining 15% is mostly gas. While we use a lot of energy in manufacturing, we will start with thorough measures to conserve energy and improve production efficiency. We will then replace power sources with those which do not emit CO<sub>2</sub> or capture CO<sub>2</sub>, through efforts such as the introduction of in-house power generation and switching to electricity from renewable energy sources or non-fossil fuel energy sources. Building on the strength of our global production system, we will implement these measures one by one by selecting the highly competitive and effective initiatives and choosing the countries and regions where they will be highly competitive and effective. In domains where energy conversion is difficult, we will first achieve carbon neutrality through carbon offsets. However, we aim to achieve true carbon neutrality through continuous improvement and technological innovation.

To drive the implementation of these measures, we have begun to introduce internal carbon pricing, including capital investment, starting with the Head Plant. We are planning to expand this system to the entire Group.

### Internal carbon pricing



## Connect

### Green Communication

To improve local communities' disaster resilience, we have launched a joint project with the local government of Toyohashi, Aichi. The project was selected by the Ministry of Economy, Trade and Industry as a project formulating a plan for the introduction of a local microgrid.\* Moving forward, we will establish an exploratory committee by inviting local business operators, experts with specialized knowledge, and other people to be its members and consider the times, locations, and other specific details of individual demonstrations.

The power to be stored in an in-house power generation system that is planned to be installed will be used efficiently using FEMS for production activities during normal times. When the power supply is shut down in the event of a disaster or similar event, the stored power will be supplied to local communities to maintain a safe, hygienic living environment for local people during the emergency. This initiative is the first step toward the future we are aiming for. It contributes to the achievement of the carbon neutrality of our production sites using FEMS and also helps increase the disaster resilience of local communities.

- In the event of an emergency, the photovoltaic power generation system and power storage system will be used as a power plant to supply power to areas around the evacuation facilities.
- During normal times, the system is used to reduce electricity costs and promote carbon neutrality through the control of demand within the plant and the use of renewable energy.

\*Local microgrid: When the power grid of the electric power company is disconnected in the event of a large power outage following a disaster or similar event, Musashi's facilities, including their photovoltaic power generation systems and storage batteries are used to supply power stably within a specific grid.

