

Environmental Improvement Efforts

United Kingdom (G-TEM)

We identified 68 air leaks in the piping systems and repaired them. By eliminating the wasted power consumption of the air compressor, we were able to reduce the power consumption by 40%, which led to an annual CO₂ reduction of approximately 60 tons.



Slovakia (G-TES)

The Slovakia Plant, which will start operations in September 2019, has adopted large daylight windows in the ceiling to reduce power consumption by reducing the number of ceiling lights.



Thailand (G-TEC)

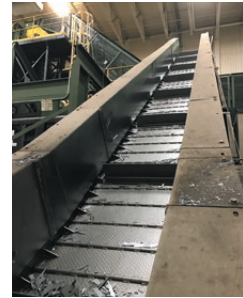
We started turning off lights and air conditioners during the break periods from January 2018.

This reduces power consumption, enabling a reduction of 1.7 tons of CO₂ per year, and our employees are becoming more aware of the environment.



Canada (JEC)

Up until now, the conveyor, which carries scrap* from the pressing machines, has been operating even while the pressing machines are stopped to prepare for the next production. We improved this by making conveyors automatically stop after a certain period of time after the pressing machines stop, resulting in a reduction of unnecessary conveyor movement, leading to power saving. In addition, when processing items which do not produce scrap, we strive to save power by stopping the conveyors.

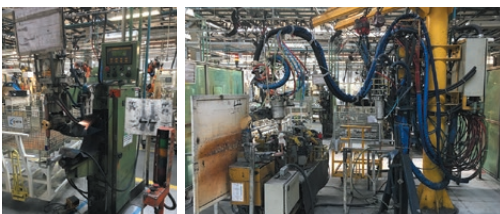


* Scrap refers to chips of iron that are generated when processing with a pressing machine.

Brazil (G-KTB)

As a part of efforts to reduce power consumption, we replaced welding machines (stationary types and portable types) that consume a large amount of electricity. We reduced 47 and 15 units respectively, and instead introduced eight electric-efficient robot welding machines. As a result, electricity consumption decreased by 79.4 MWh, enabling a reduction of approximately 85 tons of CO₂ emissions per year. Additionally, we have automated welding operations that were previously performed manually to ensure safety.

Daylight windows installed in the ceilings maintain enough brightness during the day, even if the ceiling lights are turned off. Besides contributing to a reduction in the use of ceiling lights, they have also helped to make the atmosphere of the workplace brighter.



Stationary spot welding machine

Portable welding machine



Robot

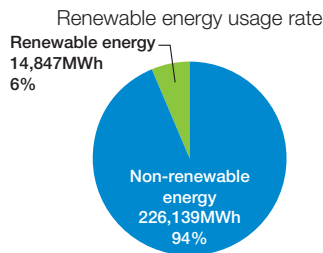
Inside the factory during the day

Introduction of Renewable Energy

In order to use electricity generated by renewable energy and create a low-carbon society, we have installed solar panels on plant roofs and are promoting self-consumption.

Self-consumption of Electricity through Solar Power Generation

In overseas business locations, self-consumption of electricity is contributing to the reduction of CO₂ emissions. APAC and WAPAC in China rent out their roof space to generate solar power, and G-TTC in Thailand and G-TIP in India have installed solar power generation equipment.



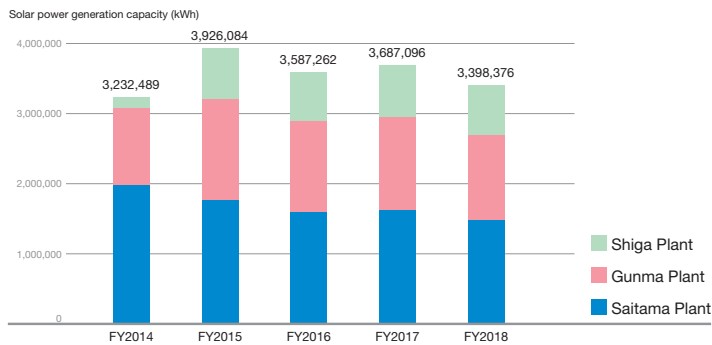
Solar power generation equipment (G-TIP)

* Renewable energy is, unlike fossil-derived energy which is a finite resource such as petroleum, coal and natural gas, energy that can be reused or is inexhaustible in the natural environment, such as solar, wind, hydroelectric, geothermal and biomass.

Creation of Electricity by Solar Power Generation

In Japan, we have been conducting the power generation business (all power is sold) since 2014 at our three business locations of the Saitama Plant, Gunma Plant and Shiga Plant, from the viewpoint of providing the world with electricity by power generation with less CO₂ emissions.

Change in solar power generation capacity



Saitama Plant



Gunma Plant

Maximum power output
 Saitama Plant 1,500kW
 Gunma Plant 1,000kW
 Shiga Plant 500kW

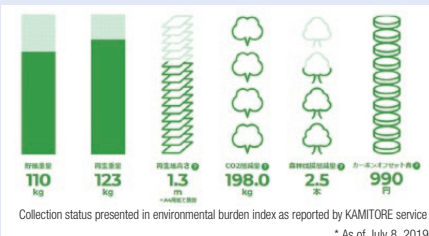


Shiga Plant

TOPICS

Renewal of environmental leaflets

The Saitama Plant has been participating in PELP! which upcycles paper since September 2018. Used copier paper was collected in a special collection box, and 201kg was collected within half a year. As of April 2019, 123kg was dissolved and processed, and the environmental leaflet was renewed using the recycled "PELPIPAPER". This leaflet was published in two languages, Japanese and Chinese, and distributed to all employees of all business locations in Japan. It was favorably received with positive comments regarding the paper's texture. This environmental leaflet is also used for environmental education.



Collection status presented in environmental burden index as reported by KAMITORE service
 * As of July 8, 2019

VOICE

In the Environmental Management Section, we are promoting efforts to reduce the environmental burden by making the burden on the environment, which is not normally visible, visible and linking production activities with their impacts on the environment.

In addition, environmental education is provided through participation in experience-based activities such as forestation and cleaning activities in the area around plants.

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 Environmental Management Section

