GY 2030 Long-Term Greenhouse Gas Target

Overview

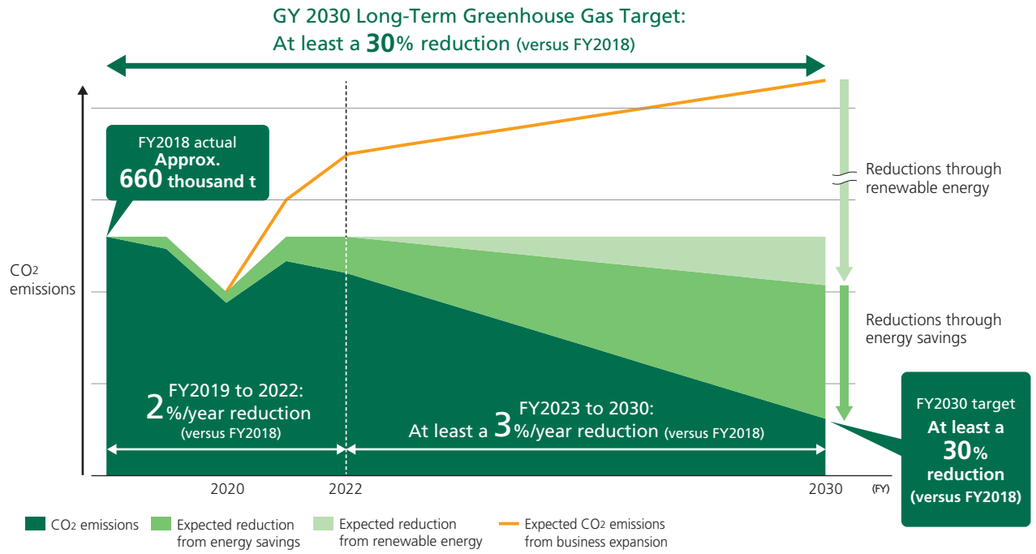
Target	**Reduce FY2030 CO_2 emissions by at least 30%**
Base year	FY2018
Period	**12 years** (FY2019 to 2030)
Rate of reduction	FY2019 to 2022: **6%** (2%/year) FY2023 to 2030: At least **24%** (at least 3%/year)

In May 2021, we established the "GY 2030 Long-Term Greenhouse Gas Target," our goal for reducing CO_2 emissions through fiscal 2030. We recognize climate change associated with global warming to be an important issue for society, and are thus promoting the reduction of CO_2 emissions from our business activities.

In our Fifth Mid-Term Management Plan announced in fiscal 2019, we presented a target for reducing CO_2 by fiscal 2022 (a 6% reduction compared to fiscal 2018), and are now working to achieve that goal. In addition, to fulfill our responsibilities as a company in preparing for the transition to a decarbonized society, we are engaged in a variety of measures aimed at reducing CO_2 emissions from our business activities by at least 30% versus fiscal 2018 by fiscal 2030.

Going forward, we will continue to advance these reductions in CO_2 emissions based on the international situation and the Japanese government's policies, and work to further accelerate efforts to achieve carbon neutrality.

Road map for reducing CO_2 emissions

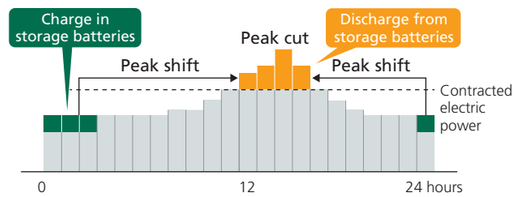


Note: Emissions fell in fiscal 2020 due to the impact of the COVID-19 pandemic

Three measures for achieving target

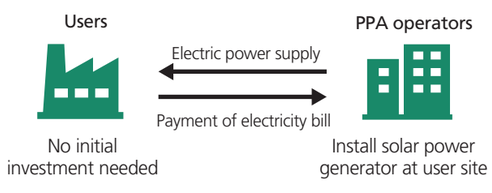
Measures	Basic initiatives
(1) Promote energy-saving measures	(1) Upgrade to energy-saving equipment (2) Develop prescriptions for efficient charging methods and develop new ones (3) Implement peak cut/peak shift practices **Graphic 1**
(2) Procure renewable energy	(1) Purchase electric power that uses renewable energy (2) Utilize emissions trading
(3) Captive consumption of renewable energy (solar power generation, etc.)	(1) Estimate amount of power generated onsite, and consider initial investment and use of the PPA model **Graphic 2** (2) Deploy and conduct validation tests on own products (lithium-ion batteries, storage battery systems, etc.)

Graphic 1 Peak cut/Peak shift



- Peak cut: Reducing electric power usage during peak hours at factories, etc.
- Peak shift: Shifting the hours of electric power usage at factories, etc. from peak hours of electric power demand

Graphic 2 PPA Model



- PPA: Acronym for Power Purchase Agreement, an agreement between the power generator and the consumer for the sale of electric power

Examples of initiatives to date

Deploying solar power generation

We have installed a 1MW mega solar power plant on the premises of our subsidiary GS Yuasa Iwaki, which has been in operation since June 2013.

We also installed a mega solar power plant with the same output at GS Yuasa's Gunma Plant, and that has been in operation since February 2015.

Cumulatively, the two power plants have generated power in excess of 17 million kWh as of the end of May, 2021. The Gunma Plant's mega solar system is also equipped with storage batteries, contributing to our business continuity plan (BCP) by supplying electricity to critical loads in the event of a disaster or other emergency.

Full view of the mega solar installation

Deployment of an energy storage system compatible with a virtual power plant (VPP*)

An energy storage system (ESS) has been installed at GS Yuasa's Kyoto Plant to reduce peak demand during power shortages.

Since fiscal 2016, GS Yuasa has been participating in the VPP demonstration project utilizing the subsidy program of the Agency for Natural Resources and Energy under the Ministry of Economy, Trade and Industry, and has been verifying the deployment and control of large storage batteries. In addition to the ESS deployed in fiscal 2017, an additional ESS was deployed in February 2021. This will help to further reduce the cost of power for business sites and will help them supply their own power during power outages, and will also contribute to improving business continuity planning functions in the event of a large-scale disaster.

Exterior of an ESS container

*A system by which dispersed energy sources, such as small-scale solar power generation and storage batteries, are remotely controlled by IoT devices to function like a single power plant.