

Using Water Effectively

Targets of the 9th Environmental Plan (Fiscal 2019–2021) and Achievements in Fiscal 2020

Considering the increasing importance of water resources worldwide, the Mitsubishi Electric Group is continuously measuring data on water used/reused at all of its 80 business sites in Japan and overseas. These figures are checked on a regular basis for any significant change, and depending on the findings, necessary measures are taken when needed. Any effective case examples are shared with other business sites on occasions such as Key Environmental Personnel Liaison Meetings to be implemented laterally.

Our aim under the 9th Environmental Plan (fiscal 2019–2021) is to reduce water usage per unit of sales by 1% per annum compared to fiscal 2011. Based on this, we are engaging in thorough management of water usage/drainage volumes and reducing water usage by saving and reusing water.

In fiscal 2020, water usage totaled 15.64 million m³ by the Mitsubishi Electric Group, of which 4.65 million m³ was reused water, corresponding to a reuse ratio of 30%. Additionally, water usage per unit of sales was 3.51 (m³/million yen), marking a reduction by 21% compared to the base year (fiscal 2011).

In Japan, water used in production processes was recycled for reuse in the same processes, and treated wastewater was used for flushing toilets and refilling cooling towers to promote the use of gray water. Rainwater was also used to reduce the use of groundwater. As a result of these initiatives, water usage totaled 13.66 million m³, of which 4.54 million m³ was reused water, corresponding to a reuse ratio of 33%. Outside of Japan, we focused on curbing the amount of water intake by reusing water and expanded the use of gray water. Owing in particular to initiatives taken at our business sites in China to conserve water and keep water usage down by increasing water reuse, water usage amounted to 1.99 million m³, of which 0.11 million m³ was reused water, corresponding to a reuse ratio of 6%.

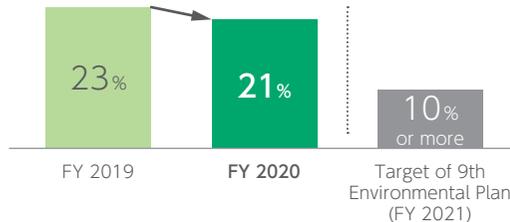
Going forward, we will strive to reduce environmental impact by saving water and expanding the reuse of water in accordance with the water resource environment and business characteristics in each business site.

Total Water Usage (Mitsubishi Electric Group)



^{*1} This figure has been altered in accordance with the new aggregation method.

Ratios of Reductions in Water Usage per Unit of Sales (Mitsubishi Electric Group)



→For details on total water usage, please refer to “Material Balance” on page 39.

Managing Water Risk

Water risk is increasing worldwide with ever-more serious water shortages and pollution, as well as abnormal weather caused by climate change. This affects the production of both raw materials and products, leading to a corresponding interest in corporate water risk management.

Water risk within the Mitsubishi Electric Group is evaluated as part of our corporate risk management framework. The evaluation factors in the influence on stakeholders, as well as the impact on ecosystems. We use the results of this assessment to prioritize countermeasures for each production base and take clear action.

During product development, we evaluate product impact on water sources and their lifecycles and strive to minimize the impact.

Evaluation Details

The Mitsubishi Electric Group uses WRI Water Aqueduct^{*2} and other risk assessment tools to keep track of current and future water risk at business sites both in Japan and abroad (including the presence of water stress^{*3}).

In February 2020, following an update of WRI Aqueduct, we conducted a risk re-evaluation of business sites in Japan and overseas from two perspectives, the result of Aqueduct assessment and the business characteristics of each site.

Depending on the evaluation results, we will implement measures to mitigate future risks.



^{*2} WRI Aqueduct: Water risk assessment tool developed by the World Resources Institute (WRI)

^{*3} Water stress: Water stress levels can be defined by an index that indicates how close the relationship is between the supply and demand of water. When maximum water availability per capita falls below 1,700 m³, it is considered that water stress is present.

Tool Used

WRI Aqueduct 3.0

Status of Water Intake/Drainage/Reuse

Status of Water Intake

At business sites of the Mitsubishi Electric Group, water is taken to be used mainly for cooling, cleaning and adjusting the concentration of water-based paints, and as a solvent, an additive to materials and a heat medium. Water intake in fiscal 2020 was 11.00 million m³, 0.1 million m³ increase the previous fiscal year.

Status of Water Drainage

To avoid exceeding standard values set for each drainage point, the Mitsubishi Electric Group has established even more stringent voluntary standards, based on which water is treated before it is discharged. When there is a certain drainage standard in place according to properties specific to the water area, such a standard is also incorporated into our standards. The compliance of these standards is confirmed through measurements conducted on a regular basis.

Water drainage in fiscal 2020 was 8.62 million m³, 0.4 million m³ increase the previous fiscal year.

Status of Water Reuse

At Mitsubishi Electric Group's factories, not only fresh intake water, but water that has been used once is reused after it is treated and recycled.

Reused water totaled 4.65 million m³ in fiscal 2020, corresponding to a reuse ratio of 30%.

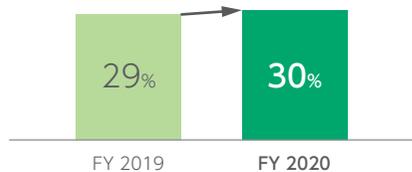
Water Intake
(Mitsubishi Electric Group)



Water Drainage Volume
(Mitsubishi Electric Group)



Water Reuse Ratio
(Mitsubishi Electric Group)



→For details, please refer to “Amount of Water Intake/Drainage/Reuse” on page 41.

Example Promoting Reductions in Water Usage by Recycling Discharged Water

In Thailand, the Water Resource Act came into effect in 2018 as a measure against repeated floods and droughts and the severe water shortage that has occurred as a result of economic growth. Additionally, in January 2020, the Department of Industrial Works (DIW) of the Thai Ministry of Industry issued a request to the country's manufacturing industries for their cooperation in reducing the discharge of water to outside the factories and in using water efficiently. These developments highlight the increasing importance of water resources. Under these circumstances, a new drainage water recycling system was introduced to Kang Yong Electric Public Co., Ltd., our affiliated company located in Samut Prakan, upon designing a plumbing plan, improving water delivery facilities, and adjusting water pressure, water volume, and the amount of chemicals injected to ensure that the appropriate levels of water quality are maintained. As a result, clean water used per employee was reduced by about 20%. We aim to further save clean water by expanding the use of recycled water to production processes that require high water quality.



Receiving “A-List Company” Recognition, the Highest Evaluation from CDP* for Fourth Consecutive Year

In fiscal 2019, Mitsubishi Electric has been named an A-List company in the CDP Water Program for the fourth consecutive year, from fiscal 2017 to 2020. The CDP awarded us this highest evaluation in recognition of exceptional activities in terms of measures and strategies for water resources.

We will continue to press forward with our efforts to contribute to the realization of a sustainable society.

* CDP: An international NGO that examines, evaluates and discloses environmental initiatives of corporations and cities.

