

Environmental preservation

To pass onto our children a bountiful mother Earth, and to ensure sustainable coexistence and shared prosperity for Murata and other citizens of our planet, we are committed to environmental protection activities centered on an Environmental Committee and Global Warming Prevention Committee covering all environment-related departments. In addition to reducing the environmental impact of our business activities, we have positioned environmental protection as one of our priority risk treatment measures in the process of long-term value creation.

Climate change policies

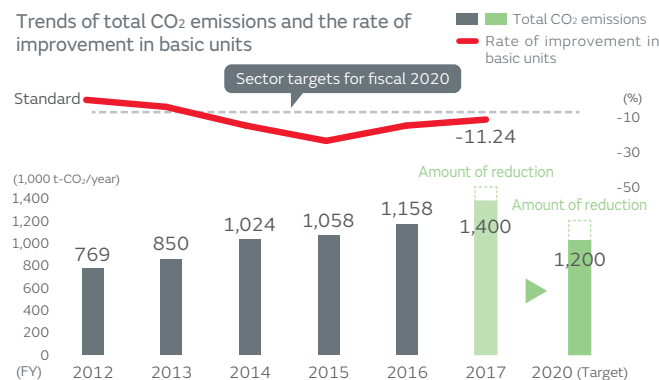
To date, Murata has established in-house investment standards for energy facilities, and is developing measures to combat climate change through proactive investment in energy-saving systems.

Murata is also subject to external evaluation. We were awarded an A- rating by CDP in recognition of our third-party accreditation for greenhouse gas emission volumes and our proactive disclosure initiatives.

However, greenhouse gas emission volumes for fiscal 2017 has been increasing rapidly due to increased production amid the recent expansion of operational scale, as well as engagement in large-scale mergers and acquisitions and development of new businesses. To halt and roll back the upward momentum in greenhouse gas emissions, we have set up a Company-wide Global Warming Prevention Committee chaired by a Board Member, and have established long-term visions for the years to 2030 and to 2050 based on the Science Based Targets (SBT) approach.

Going beyond conventional energy-saving measures centered on facility investment, we have also set up a new energy management system that combines proprietary sensor and IoT technologies, and have begun to optimize energy use within production processes.

We will also participate in the Japan Climate Leaders' Partnership, a grouping that ambitiously addresses climate change issues in Japan. Drawing on external expertise, we will launch our own in-house activities and consider the establishment of businesses that contribute to global climate change policymaking through collaborations with enterprises participating in this group. These initiatives are discussed in greater detail on our website.



Management of chemical substances

Murata is committed to supplying products with minimal impact on the global environment, to usher in a sustainable social system.

In addition to complying with legal and regulatory regimes such as the RoHS Directive and the REACH regulations, we have established in-house standards that incorporate global trends and customer requirements regarding environmentally harmful substances. Through the management system profiled below, we are taking aggressive measures to reduce or prevent use of environmentally harmful substances in our products.

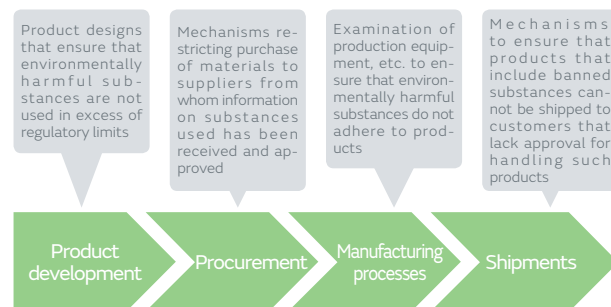
Murata is also taking preemptive measures ahead of amendments of legislation regarding environmentally harmful substances.

Under the current RoHS Directive, use of six kinds of chemical substance in electronics and electrical equipment sold within the European Union is subject to restrictions. In the amended RoHS Directive implemented July 22, 2019, use of another four types of specific phthalic acid esters has additionally been restricted.

Ahead of the implementation of the amended RoHS Directive, Murata has banned inclusion of specified phthalic esters in newly developed products since July 2017. We are also moving ahead with preparation of alternative products for our established lineups that include specified phthalic esters.

Through such measures, reducing use of environmentally harmful substances is another way in which Murata puts the safety of society, local communities and customers first.

Management of environmentally harmful substances at Murata

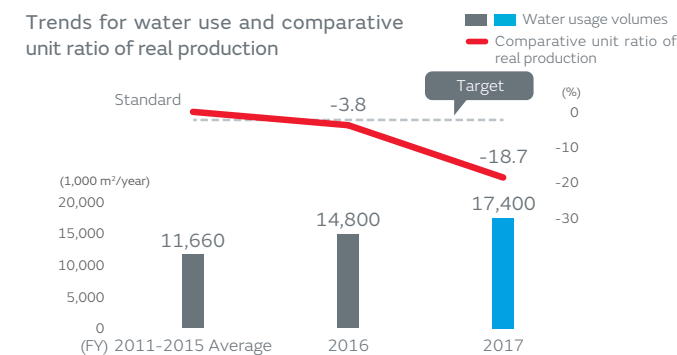


Water resource management

Murata encourages efficient use of water resources in its business activities. Based on the 6th Environmental Action Plan, we are now reducing water usage volumes and putting in place measures for water risk affecting business activities.

Progress in the 6th Environmental Action Plan

A 19% improvement against benchmarks in the previous fiscal year enabled us to meet our targets. At Wuxi Murata Electronics Co., Ltd., we reduced water usage volumes by 100,000 tons over the year by processing wastewater to levels where it could be reused in production processes.



Responding to water risk

Using disclosure materials made available by public and other authorities such as WRI Aqueduct¹ and WBCSD Global Water Tool², we are evaluating water risk (risk of drought and flooding) after establishing in-house standards for appraisal. Drought risk for each business site is evaluated using three grades (high, medium, and low). Looking at water usage volumes by appraisal grade, we concluded that 98% of sites were at locations where overall drought risk was low or medium. There were no business sites at a high risk of flooding, assessed in terms of frequency of flood occurrence and extent of impact.

¹ Water risk evaluation tool developed by World Resources Institute (WRI)

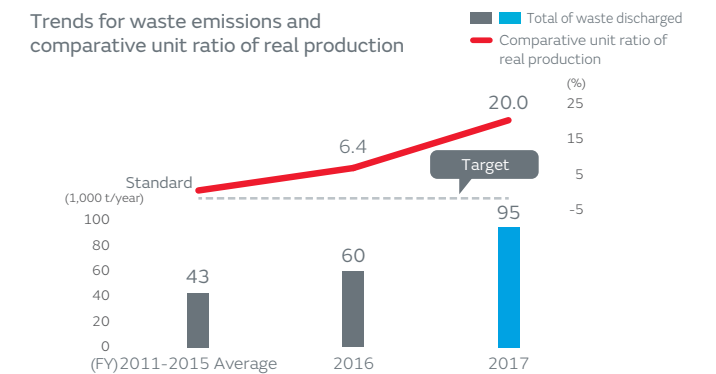
² Water risk evaluation tool developed by World Business Council for Sustainable Development (WBCSD)

Waste Management

Murata is engaged in waste management following basic policies of compliance, curbing generation of waste products, and zero emissions. Based on the 6th Environmental Action Plan, we are currently taking measures to reduce volumes of waste generated and put in place measures for natural disasters such as heavy snow and earthquakes.

Progress in the 6th Environmental Action Plan

Despite measures taken to reduce waste including the rationalization of usage volumes of solvents, we fell 20% short of our target. The reason for this was a dramatic increase in production volumes for lines with higher waste per basic unit values, in line with business expansion. At the moment, we are considering introduction of wastewater processing facilities for in-house treatment of the 15% of total waste that is fluid, and plan to complete these facilities during fiscal 2019.



Disaster measures

We have commissioned a waste disposal firm to handle waste generated through production activities and also to carry out recycling. In the event of disaster damage arising at this subcontractor despite all precautions, we would have to suspend production activities as we would no longer be able to get rid of waste. To avoid this risk, we are securing additional processing routes so that production activities would not be affected.