

## Environmental Initiatives

At ROHM, we believe that corporate activities that seek to be in harmony with the natural environment, that is, a balance between economic activities and nature's regenerative and purifying capabilities, will lead to a sustainable society. This is why we are strengthening our efforts to address environmental issues through the effective use of resources, and reducing our impact on the environment through our production activities and eco-friendly products.

Environmental Management <https://www.rohm.com/sustainability/environment>

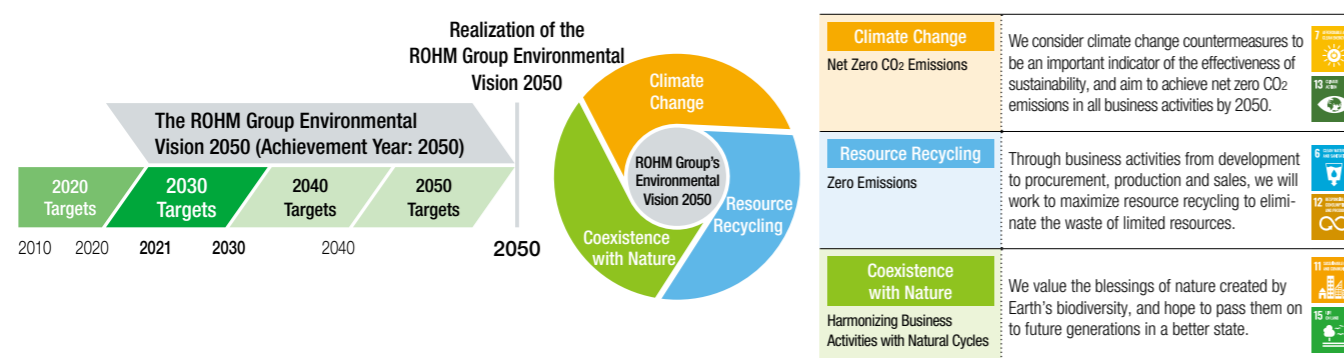
Sustainability Priority Issues	<b>Mitigation of Climate Change</b> <ul style="list-style-type: none"> <li>Reduction in GHG emission</li> <li>Reduction of energy consumption</li> <li>Promotion of introduction of renewable energy</li> </ul>	<b>Effective Use of Resources</b> <ul style="list-style-type: none"> <li>Water resource consumption reduction</li> <li>Reduction of waste</li> </ul>	<b>Strengthening Sustainable Technologies, Developing and Supplying Innovative Products</b> <ul style="list-style-type: none"> <li>Contribution by developing energy-saving products and supplying them to the market</li> <li>Contribution by developing and supplying miniaturized products</li> <li>Contribution by developing and supplying products pursuing functional safety</li> </ul>
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	FY2022 results	KPI
Mitigation of Climate Change	<ul style="list-style-type: none"> <li>Reduced GHG emissions by 21.8% vs. FY2018 levels</li> <li>Reduced GHG emissions per unit by 38.6% vs. FY2018 levels</li> <li>24% introduction of renewable energy completed</li> </ul>	<ul style="list-style-type: none"> <li>Reduce GHG emissions by 50.5% vs. FY2018 levels (FY2030 target)</li> <li>Reduce emissions per unit by 45% vs. FY2018 levels (FY2030 target)</li> <li>Promote the shift to renewable energy with the goal of 100% introduction (FY2050 target)</li> </ul>
Effective Use of Resources	<ul style="list-style-type: none"> <li>Increased water recovery and reuse rate by 1.2% vs. FY2019 levels</li> <li>Recycling rate of 98.5% for consolidated companies worldwide</li> </ul>	<ul style="list-style-type: none"> <li>Increase water recovery and reuse rate by 5.5% vs. FY2019 levels (FY2030 target)</li> <li>Zero recycling emissions for consolidated companies worldwide (FY2030 target)</li> </ul>

### The ROHM Group Environmental Vision 2050

Human economic activities are having a negative impact on the Earth, and problems such as climate change, resource depletion, and loss of biodiversity are becoming increasingly serious. In 2021, we presented the ROHM Group Environmental Vision 2050 to demonstrate our commitment to leave the global environment in a better state for future

generations. In this vision, we have identified climate change, resource recycling, and coexistence with nature as the three important themes to address, and we also formulated targets for FY2030 as an intermediate step as we work to resolve environmental issues toward achieving our FY2050 targets.



### Initiatives for Achieving FY2030 Medium-Term Environmental Targets

We are taking action to achieve targets such as the following four for FY2030.

#### Reducing GHG emissions by 50.5% (vs. FY2018)

In FY2022, we reduced GHG emissions (Scope 1 and 2) by 21.8% from FY2018 levels to 8,921 t-CO<sub>2</sub>. In addition to reducing annual CO<sub>2</sub> emissions by 549 t-CO<sub>2</sub> by upgrading

to highly efficient chillers at our plant in Thailand, we have not only reduced the amount of heavy oil used, but also reduced annual CO<sub>2</sub> emissions by 326 t-CO<sub>2</sub> by upgrading to highly efficient once-through boilers at the LAPIS Semiconductor Co., Ltd. Miyazaki Plant (hereinafter "LAPIS Miyazaki").

#### Moves toward 100% renewable energy by FY2050

Specific plans for the introduction of renewable energy through FY2030 have been formulated, and we are executing these plans in phases. In FY2022, 100% of power used at our mainstay Thailand Plant came from renewable energy, increasing the ratio of renewable energy to all electricity used in the Group by 18 percentage points from FY2021 to 24%. From FY2023, we plan to use 100% renewable energy at our Philippines Plant, aiming for a renewable energy ratio of 43% (19 percentage points increase compared to FY2022).

#### Zero waste emissions

In FY2022, we maintained zero emissions on a domestic consolidated basis by promoting the effective use of sulfuric acid waste liquid, achieving a recycling rate of 95.9% on an overseas consolidated basis (domestic and overseas consolidated: 98.5%).

	FY2022 results	KPI
Strengthening Sustainable Technologies, Developing and Supplying Innovative Products	Net sales: 507.8 billion yen	Achieve net sales of more than ¥600 billion as the total amount of social contribution (FY2025 target)

### Developing Eco-friendly Products: Battery Monitoring IC for Lithium-ion Batteries

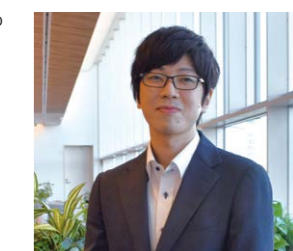
In recent years, lithium-ion batteries have become essential for saving energy and miniaturizing a range of products, including mobile devices, power tools, and cordless vacuum cleaners. In order to achieve carbon neutrality, they are rapidly becoming popular in high-capacity applications such as power storage devices and electromobility. However, to maintain safety and prevent performance degradation, lithium-ion batteries must be used by monitoring the voltage, current, and temperature to prevent overcharging and over-discharging. This is where a battery monitoring IC comes into play. LAPIS Technology Co., Ltd. (hereinafter "LAPIS

Technology") has been developing battery monitoring ICs since 2008. LAPIS Technology's battery monitoring IC features the use of high-voltage elements to measure many stacked battery cells, and uses LAPIS Miyazaki's high-voltage process. LAPIS Technology has developed the best battery monitoring ICs for customer applications, including a 16-cell battery monitoring IC and the industry's first mass-produced battery monitoring IC with built-in high-side NMOS-FET drivers that do not require insulating components for communication with battery monitoring ICs.

#### Challenges for the Future ▶▶ Development to further improve safety of lithium-ion batteries

In a world aiming to become carbon neutral, the battery market is expected to further expand with the growing need to reuse batteries. As such, the demands on the safety of lithium-ion battery monitoring ICs are increasing more than ever. To maximize the performance of lithium-ion batteries, we have received requests from customers for lower current consumption, highly accurate battery level measurement, and enhanced safeguards. To measure remaining battery levels with even higher accuracy and lower cost, we are currently developing a battery monitoring IC that combines the design technology cultivated through LAPIS Miyazaki's high-voltage process with that of ROHM Hamamatsu, which has a wide range of high-performance high-voltage elements. We also hold regular technical exchange meetings with our customers, offering technical proposals to solve their problems. Recently, we have been evaluating the validity of battery deterioration measurement methods. As such, we have proposed a method for predicting battery deterioration that incorporates ROHM's new technology, and we are now looking at its implementation while taking into account feedback from customers. Moreover, in addition to improving the functionality of our products, LAPIS Technology has been promoting the acquisition of functional safety engineer certification for our technicians for several years.

Through these efforts, we will expand our battery monitoring IC product lineup and improve functionality, contributing to further improvements in the safety of lithium-ion batteries.



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