

**HONDA**

All Honda Thai Suppliers Conference  
Date 22 March 2019  
Hotel Bangkok Suvarnabhumi Airport

**STANLEY ELECTRIC CO., LTD.**

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**Editorial Policy**

Embracing the bold Stanley Spirit of "outshining light," the Stanley Group strives to contribute to society and achieve both environmental protection and economic development through the boundless pursuit of the value of light.

This report provides information on our basic stance on environmental management and the status of our environmental protection activities in an easy to understand manner. It was issued in the aim of further increasing communication with our shareholders, suppliers and investors, residents of local communities, the people who use our products, and employees, as well as to reassure them and gain their confidence.

● **Applicable Scope of the Report**

This report covers Stanley Electric Co., Ltd., 8 domestic affiliate companies, and 16 major overseas production affiliate companies.

● **Applicable Period of the Report**

FY 2018 (April 1, 2018 to March 31, 2019)  
Some parts of the report include environmental activities from FY 2019.

● **Business Changes related to the Environment during the Report Period**

[Overseas]

- The data for Stanley Electric Manufacturing Mexico S.A. de C.V. (SMX) was added.

● **Guidelines Consulted**

The Environmental Reporting Guidelines 2018

● **Month Issued / Next Scheduled Issuance**

Month Issued: June 2019  
Next Scheduled Issuance: June 2020  
(Issued every year since 2002)

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## Top Message

# Aiming for the Sustainable Development of Society and Business



**President  
Takanori Kitano**

In July of last year, the approach of Typhoon No. 7 and the stalling of seasonal rain fronts caused record-setting heavy downpours that lasted for an extended period of time over an exceptionally wide range spanning Western Japan and the Tokai Region. This resulted in an enormous number of victims on account of the flooding of rivers, as well as inundation damage and landslide disasters.

In addition, the climate change seen in recent years has given rise to natural disasters the likes of which have rarely been seen before in each region. As part of this, there is a growing sense of crisis internationally that is aimed at establishing sustainable societies, as evidenced by moves such as the recent adoption of the SDGs and the Paris Agreement. As such, companies are working to meet the various requests and demands placed upon them by society with regards to the environment, and must contribute to society more than ever before.

We at the Stanley Group, for whom "manufacturing" lies at the core of our corporate activities, are working on improving efficiency with our energy consumption resulting from our business activities and creating products designed for the environment as themes that are absolutely crucial.

One area we are placing particular emphasis on is thoroughly eliminating waste. In other words, setting forth the goal of eliminating waste throughout all of our business processes minimizes the raw materials, water, energy, and other resources that go into our business activities and uses them in an economical manner, thereby boosting productivity.

We recognize our steadfast efforts to constantly be cognizant of waste within our everyday work and to go about eliminating this as the foundation for continuing to strike a balance between environmental conservation and economic development.

As a result of these activities, we have been soundly achieving our targets for basic added value units, which is an indicator of CO<sub>2</sub> emissions per amount of value added, both at our domestic and overseas companies in the previous year as well.

Moreover, in response to problems such as the water shortages, water pollution, and air pollution that are progressing at the global level, we are promoting the development of LED light sources for sterilizing and purifying water and air. In addition, we have launched and begun operating environmental advancement business projects designed to harness the technological innovations and product development brought about by our initiatives for environmental problems as the driving force behind our corporate growth.

We in the Stanley Group aim for the sustainable development of society and our company by pooling our wisdom. We do this in order to pass on the immeasurably rich blessings of our Earth and its ecosystems to the next generation in a healthy state.

Here, we have compiled the environmental protection activities of the Stanley Group over the previous fiscal year in the form of our 2019 Environmental Report. This report is designed to raise understanding of our company's initiatives, attitudes, and specific activities for environmental conservation. We welcome your candid opinions with a view toward strengthening our future activities.

## Introduction to the Stanley Group's Business

# Business Overview

### Stanley Electric Co., Ltd.

Address : 2-9-13, Nakameguro,  
Meguro-ku, Tokyo  
153-8636, Japan

Phone : 81-3-6866-2222

Founding : December 29, 1920

Establishment : May 5, 1933

President : Takanori Kitano

Capital stock : ¥30,514 million

Head Office : (Meguro-ku, Tokyo)

Laboratories : Research and Development Laboratory  
(Yokohama), Utsunomiya Technical  
Center, Yokohama Technical Center,  
Opto Technical Center (Yokohama)  
Minatomirai Technical Center (Yokohama)

Branch offices : Osaka, Nagoya

Marketing offices, etc.:  
Omiya, Sayama, Suzuka, Sendai,  
Mizushima, Asaka

Factories : Hatano, Okazaki, Hamamatsu,  
Hiroshima, Yamagata

### Overview of the Stanley Group

Consolidated affiliates: 36 companies

Affiliates accounted for by the equity method:  
3 companies

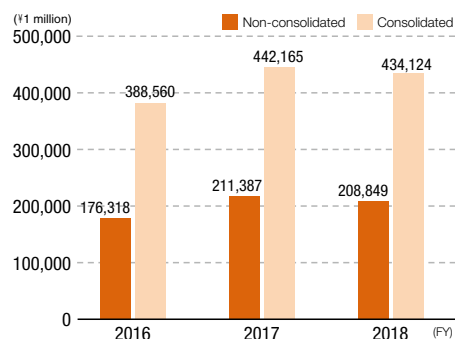
### Major Lines of Business

- ① Manufacture, sales, and export/import of automotive and other lamps
- ② Manufacture, sales, and export/import of semiconductors, electronic parts, and other electric devices
- ③ Manufacture, sales, and export/import of automotive electric parts and other automotive accessories
- ④ Manufacture, sales, and export/import of measuring, medical, and other instruments and equipment
- ⑤ Development and sales of software programs
- ⑥ Investment in various business projects
- ⑦ Business operations relating to the above items 1 through 6

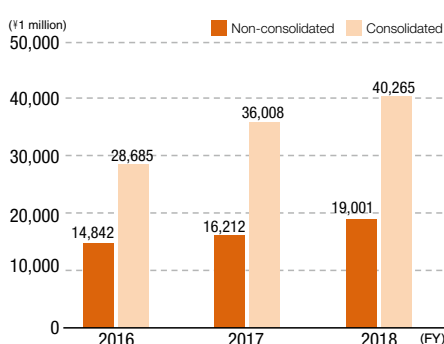
(As of April 2019)

### Summary of the Stanley Group

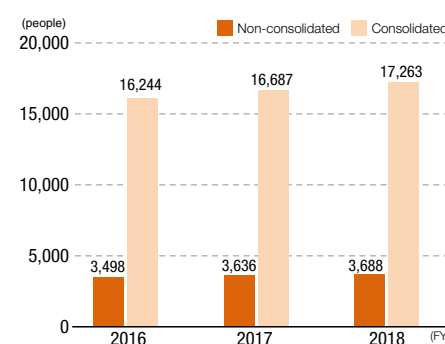
#### Changes in Sales



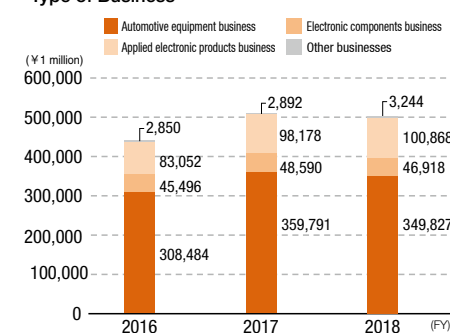
#### Changes in Net Profit



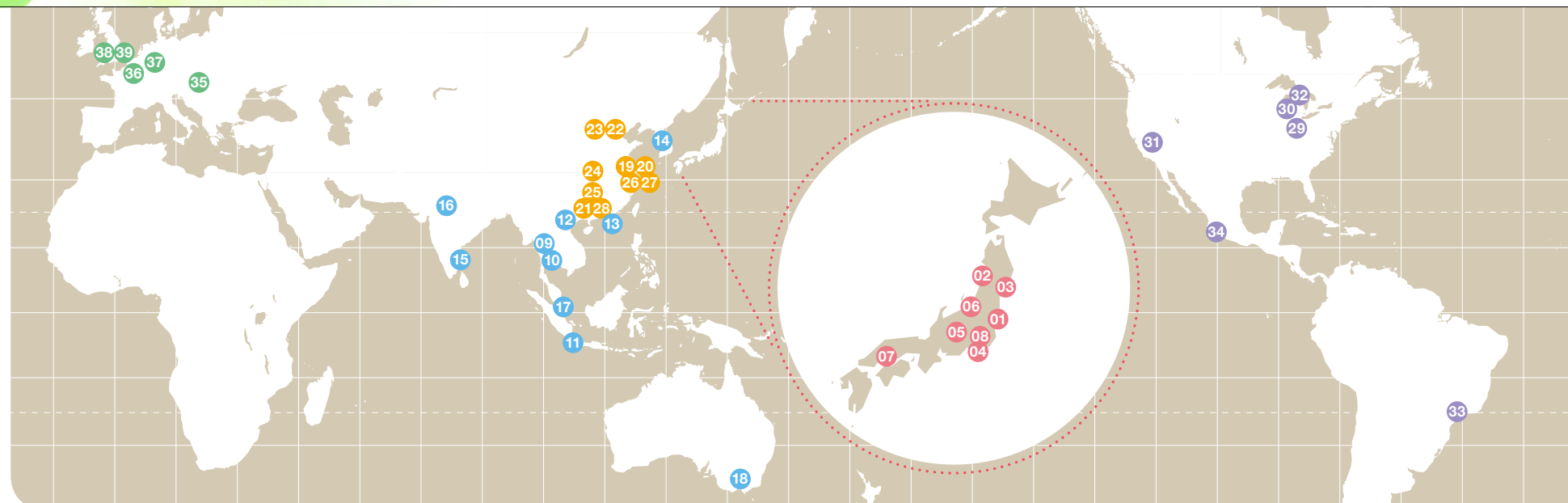
#### Changes in the Workforce



#### Changes in Consolidated Segment Sales by Type of Business



\*Including internal sales between segments



## Introduction to the Stanley Group's Business

### Major Affiliate Companies

#### Japan

- 01 Stanley Iwaki Works Co., Ltd.
- 02 Stanley Tsuruoka Works Co., Ltd.
- 03 Stanley Miyagi Works Co., Ltd.
- 04 Stanley Well Corp.
- 05 Stanley Ina Works Co., Ltd.
- 06 Stanley Niigata Works Co., Ltd.
- 07 Matsuo Electric Co., Ltd.
- 08 Stanley Pal Co., Ltd.

#### Asia and Oceania

- Thailand 09 Asian Stanley International Co., Ltd. (ASI)
- 10 Thai Stanley Electric Public Co., Ltd. (THS)
- Indonesia 11 PT. Indonesia Stanley Electric (ISE)
- Vietnam 12 Vietnam Stanley Electric Co., Ltd. (VNS)
- Hong Kong 13 Stanley Electric (Asia Pacific) Ltd. (SAP)
- Korea 14 Stanley Electric Korea Co., Ltd. (SEK)
- India 15 Stanley Electric Sales of India Pvt. Ltd. (SSI)
- 16 Lumax Industries Ltd. (LMX)
- Singapore 17 Stanley Electric Holding Asia-Pacific Pte. Ltd. (SEAP)
- Australia 18 Hella-Stanley Holding Pty Ltd. (HESA)

#### China

- 19 Suzhou Stanley Electric Co., Ltd. (SEZ)
- 20 Suzhou Stanley LED Lighting Technology Co., Ltd. (SLT)
- 21 Shenzhen Stanley Electric Co., Ltd. (SSZ)
- 22 Tianjin Stanley Electric Co., Ltd. (TSE)
- 23 Tianjin Stanley Electric Technology Co., Ltd. (TST)
- 24 Wuhan Stanley Electric Co., Ltd. (WSE)
- 25 Guangzhou Stanley Electric Co., Ltd. (GSE)
- 26 Shanghai Stanley Electric Co., Ltd. (SSE)
- 27 Stanley Electric (China) Investment Co., Ltd. (SECN)
- 28 Stanley Electric Trading (Shenzhen) Co., Ltd. (SST)

#### Americas

- U.S. 29 Stanley Electric U.S. Co., Inc. (SUS)
- 30 I I Stanley Co., Inc. (IIS)
- 31 Stanley Electric Sales of America, Inc. (SSA)
- 32 Stanley Electric Holding of America, Inc. (SEAM)
- Brazil 33 Stanley Electric do Brasil Ltda. (SEB)
- Mexico 34 Stanley Electric Manufacturing Mexico S.A. de C.V. (SMX)

#### Europe

- Hungary 35 Stanley Electric Hungary Kft. (SEH)
- France 36 STANLEY-IDESS S. A. S. (SID)
- Germany 37 Stanley Electric GmbH (SED)
- England 38 Stanley Electric (U.K.) Co., Ltd. (SEU)
- 39 Stanley Electric Holding Europe Co., Ltd. (SEEU)

## Introduction to the Stanley Group's Business: Main Products

# Stanley's Lights Create New Possibilities

### A Automotive equipment business

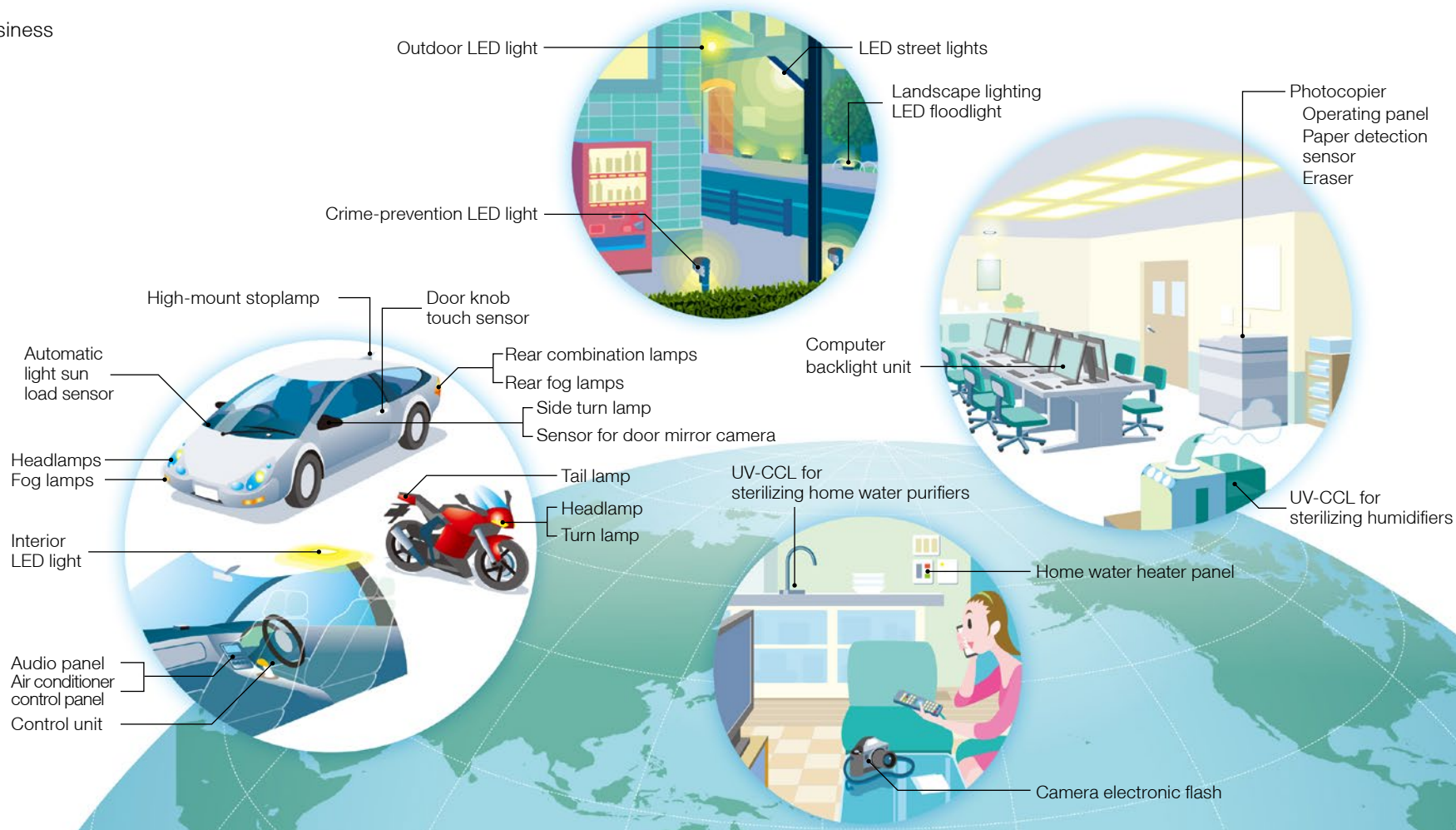
LED Headlamps  
HID Headlamps  
Halogen Headlamps  
Rear Combination Lamps  
Motorcycle LED Headlamps  
Motorcycle Halogen Headlamps  
Motorcycle Taillamps  
High-mount Stoplamps  
Fog Lamps  
LED Bulbs  
Automotive Bulbs

### B Electronic components business

Light Emitting Diodes (LED)  
Infrared LED  
Photodetector  
Optical Sensors  
Liquid Crystal Display (LCD) Elements  
Sub-miniature Lamps

### C Applied electronic products business

Center Panel Modules for Automobiles  
Electrical Sensors for Automobiles  
Operating Panels  
Backlighting Units for LCD  
Flash Units for Camera  
Plant Grow Lights  
LED Lights for Scenery / Production  
LED Lights for Facilities  
LED Lights for Roadways



—Highlights of Our Environmental Activities in FY 2018—

## Creating Value from Light and Illuminating a Bright Future

Here we will report on the new environmental activities that the Stanley Group has been working on, as well as activities that are worth taking note of.



### Achieving energy-savings of 75%

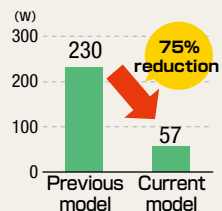
## Switching to full LED headlamps and rear lamps for the Gold Wing

Stanley Electric products come equipped on the Gold Wing, a new motorcycle by Honda Motor Company, for its headlamps and rear combination lamps. Switching to full LED lights for both the head and rear lamps has contributed to lowering their power consumption and reducing their weight.

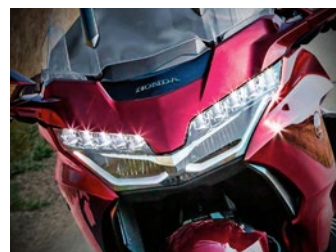
For the low beams on our headlamps, we have achieved dazzlingly brilliant light output via multi-lamp system LED modules. The light-guide position lamps have fine cuts that allow for uniform three-dimensional light distribution and serve as the signature lamp. As a whole, the headlamp contributes to enhancing the aerodynamic performance of the motorcycle. In this way, we have successfully struck a balance between design that abounds with a high class feel and functionality.

Moreover, for the rear combination lamps we adopted a design that is evocative of wings that is worthy of the name "Gold Wing." For these we harnessed our uniform light distribution technology for the tail, stop, and turn functions, and imbued them with design features befitting Honda's flagship model when seen from the rear of the motorcycle as well.

Power consumption per headlamp



Gold Wing Tour



### Our PC backlight prevents data leaks due to snooping at the press of a button

We have developed the world's first backlight for PCs with built-in privacy functionality

We have developed the world's first backlight for PCs with built-in privacy functionality, which has been adopted by Hewlett-Packard as a privacy screen on their computers.

Ordinary snooping prevention films to date have suffered from drawbacks such as involving time and effort to mount, attach and detach, and carry around, while also reducing visibility by dimming the brightness when they are attached. Our backlight units are built into the display and can be switched on at the press of a button, thus clouding the display when viewed from the sides and preventing data leaks due to snooping. The high luminance display offers outstanding visibility in bright locations, is light weight and slim, and consumes less power while being equipped with privacy functions.



PC backlight that obscures visibility when viewed from angles other than the front

—Highlights of Our Environmental Activities in FY 2018—

## Creating Value from Light and Illuminating a Bright Future



Development Assistance: Motoko Ishii Lighting Design Inc.  
Planning & Production: Motoko Ishii and Akari-Lisa Ishii



Projecting golden light over great distances with minimal power

### Developing the world's first golden LED floodlights

Our LED floodlights are used to light up a variety of historical structures and some of the world's leading tourist attractions, such as the Kabuki-za Theatre in Ginza and Niagara Falls in North America, where they are used to further brighten the appeal of such attractions. We recently developed the world's first golden LED floodlight, which has been adopted not only in Japan, but all around the world to wreath these sites in golden light.

#### Lighting up the Eiffel Tower

Our golden LED floodlights were adopted for the "Eiffel Tower Special Light-up: Eiffel Tower Dressed in Japanese Lights," which was the highlight of the official plans for Japonismes 2018, an event commemorating the 160-year anniversary of friendly relations between Japan and France. Produced by the world-renowned lighting designers Motoko Ishii and Akari-Lisa Ishii, the work saw Korin Ogata's painting Irises Screen, which is a National Treasure of Japan, projected onto the Eiffel Tower. The tower was lit up as if adorned with gold using the latest technology from Stanley Electric, further brightening the brilliance of nighttime in the "City of Lights."

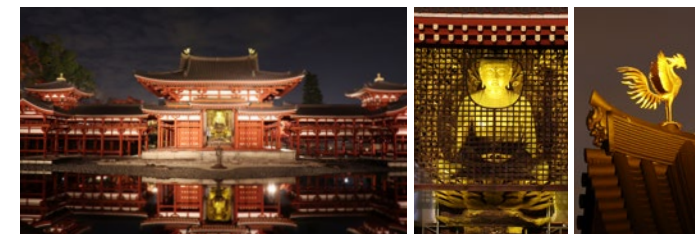
For the occasion, 120 LED floodlights with ultra narrow light angle (gold) that were able to effectively focus the LED light using minimal power consumption were used. Through this, the Eiffel Tower was uniformly illuminated with about 7kW of power (equal to the amount from six hair dryers). As such, our environmentally-friendly products were able to make this historic light up event a resounding success.



#### Projecting golden light onto Phoenix Hall of Byodoin Temple

Byodoin Temple is a World Heritage site located in Kyoto that holds special nighttime visits every year in the fall. Out of a desire to further enliven nighttime sightseeing and to do something completely different from the past, a proposal was made and successfully implemented to use our golden LED floodlights, the first of their kind in the world, to project light onto the facilities.

In Phoenix Hall (a National Treasure), our miniature golden LED floodlights were used to illuminate the Amida Buddha statue (a National Treasure), which is the temple's principal object of worship located in the center of the hall, while our LED floodlights with ultra narrow light angle (gold) were used to illuminate the phoenix (also a National Treasure) on the roof. Illuminating these figures covered in gold leaf with golden light imbued them with a brilliant luster and gave them a mysterious silhouette that stood out amidst the dark night.



©Byodoin Temple

#### Views



Realizing the Special Light-up of Eiffel Tower!

Ryosuke Yamazaki

Design Department, Yokohama Technical Center

Adjusting the illumination direction of the floodlights in 1°denominations to achieve uniform lighting on the Eiffel Tower with a limited number of lamps was no easy feat. Yet we were successful in soaking the Eiffel Tower in golden color with a negligible power of 7kW. Moving forward, we will continue working to develop more products designed for the environment learning from this valuable experience.

—Highlights of Our Environmental Activities in FY 2018—

## Creating Value from Light and Illuminating a Bright Future



### Achieving sustainable societies

## Our environmental activities and the Sustainable Development Goals (SDGs)

Through our business activities, the Stanley Group promotes initiatives aimed at achieving a sustainable society.

In September 2015, the United Nations adopted the Sustainable Development Goals (SDGs), which consist of 17 goals and 169 targets for resolving a variety of social challenges in areas such as the environment, health, human rights, poverty, and peace. These have been positioned as "goals for all people" for the year 2030 that indicate an ideal vision for the future. For our part, the Stanley Group, which operates our businesses globally, has forged a connection between our environmental activities and the SDGs, and primarily promotes initiatives like those in the figure on the right in four areas found amongst the 17 goals. We also undertake awareness-raising activities for our employees every year through the use of level-specific training and our e-learning system. Moving forward, we will examine important challenges that ought to be addressed in a prioritized manner. Based on this, we will promote the establishment of a foundation for supporting medium to long-term growth by giving due consideration to the risks and opportunities brought about by our business activities. We will continue working to achieve the SDGs through products and services borne through Stanley's "boundless pursuit of the value of light."

Targets of the SDGs		Primary initiatives of the Stanley Group
<b>6</b> CLEAN WATER AND SANITATION 	Ensure availability and sustainable management of water and sanitation for all	<ul style="list-style-type: none"> <li>● Providing safe water through the use of UV cold-cathode tube and deep ultraviolet LED products</li> <li>● Maintaining water quality by reducing hazardous chemical substances</li> <li>● Recycling water, etc.</li> </ul>
<b>7</b> AFFORDABLE AND CLEAN ENERGY 	Ensure access to affordable, reliable, sustainable and modern energy for all	<ul style="list-style-type: none"> <li>● Expanding the adoption and use of sustainable energy (solar power)</li> <li>● Reducing our energy use through energy-conservation activities, etc.</li> </ul>
<b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION 	Ensure sustainable consumption and production patterns	<ul style="list-style-type: none"> <li>● Complying with laws and regulations governing air, water, and soil pollution</li> <li>● Miniaturizing and reducing the weight of products, while controlling the chemical substances contained within them</li> <li>● Reducing the amount of waste generated and improving our recycling rate, etc.</li> </ul>
<b>13</b> CLIMATE ACTION 	Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> <li>● Offering energy-saving products via LED headlamps, LED lights, and more</li> <li>● Reducing CO<sub>2</sub> emissions at every stage of our products, from the raw materials to production activities, distribution, and use of the products</li> </ul>



### Initiating water risk evaluations

## Water risks at the Stanley Group's production bases

In recent years, a diverse array of water problems has grown increasingly severe, including water shortages, water contamination, and flooding, as a result of factors such as rising populations and global warming. As such, initiatives to address these sorts of water risks have come to pose an important challenge.

The Stanley Group uses water in many of our processes, including coating processes for headlamp production, semiconductor production processes, and cooling our production equipment. For this reason, we performed water risk evaluations at the group's major production bases. Moving forward, we will continue evaluating water risks in response to matters like the establishment of new bases and changes in the business environment, and will take measures to reduce our water usage as needed.

► See Page 23 for details

# Environmental Management

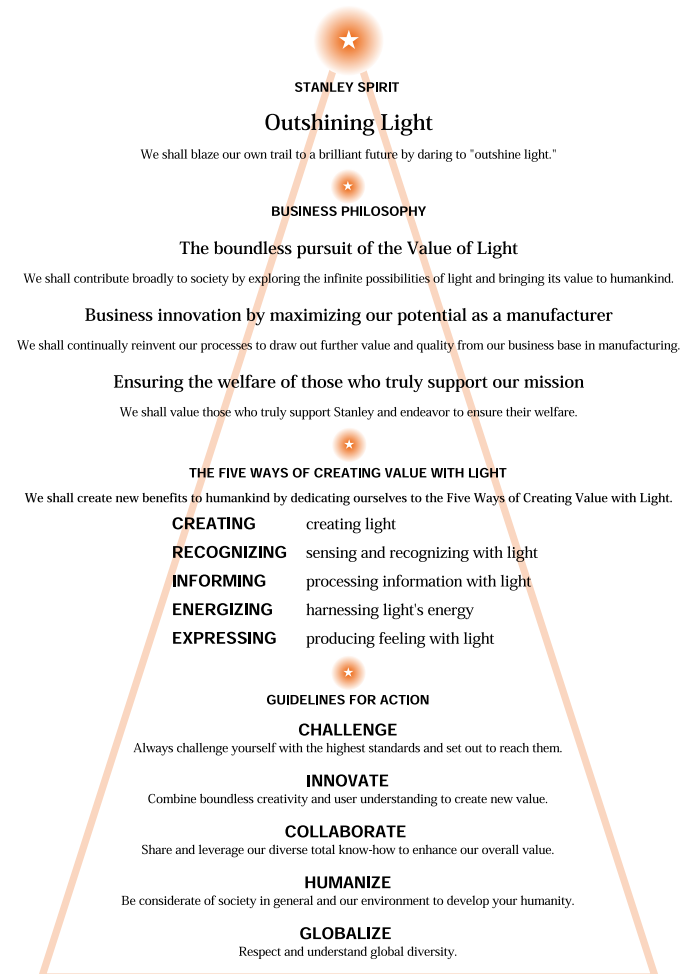
## Stanley Group Vision

In April 2000 the Stanley Group enacted the Stanley Group Vision, which establishes our basic values, the significance of our role in society, and our lasting mission in aiming for a sustainable society. In realizing the vision, it is essential to collaborate and cooperate with many stakeholders while sharing values, and by sharing the vision with the entire group we fully exploit the total power of the group, thereby addressing the challenge of creating a sustainable society through business activities.

## Environmental Management

With our business base in manufacturing with a mastery of the boundless possibilities of light under the Stanley Group Vision, the Stanley Group provides products considered necessary by society while promoting environmental management designed to pass on the immeasurably rich and momentous blessings of our Earth to the next generation in a healthy state.

### Stanley Group Vision



## Basic Stance on Environmental Management

Under the Stanley Group Vision we have enacted our Basic Environmental Philosophy, Environmental Proclamation, and Environmental Policies, through which we are proactively working to address environmental conservation.

The Stanley Group seeks to reduce its environmental impact and aspires to achieve both environmental protection and economic development.

### Environmental Activities of the Stanley Group

#### Basic Environmental Philosophy

Environmental Proclamation

#### Environmental Policies

#### Environmental Long-Term Management Plan

#### Activities that Aim for the Sustainable Development of Society and Business

##### Strengthening management systems

##### Prevention of global warming

##### Resource recycling / waste reduction

##### Prevention of pollution

Phase IV Environmental Mid-Term Management Plan (April 2010 to March 2014)

Phase V Environmental Mid-Term Management Plan (April 2014 to March 2017)

Phase VI Environmental Mid-Term Management Plan (April 2017 to March 2020)

### Underlying Concepts of Ecological Activities

Under our Basic Environmental Philosophy, the Stanley Group aims for the sustainable development of society and business. In addition, through the implementation of our Environmental Policies, we are working towards the conservation of the Earth's environment. Curbing emissions of greenhouse gases to prevent global warming, resource conservation activities that aim for a recycling-oriented society, curbing emissions of harmful chemical substances, and the development of environmentally friendly products are among the activities that we promote.

#### Basic Environmental Philosophy

Stanley Group, will strive to "create new values in harmony with the environment" through all our corporate activities by reducing the environmental impact to a bare minimum, so that we can pass on the immeasurably rich blessings of our earth and its ecosystem to the next generation in a healthy state.

#### Environmental Proclamation

We, Stanley, strive to become an Earth friendly corporation by practicing the "non-use, non-emission and non-disposing" of environmentally harmful substances.

#### Environmental Policies

**In all our corporate activities, Stanley Group will follow our Basic Environmental Philosophy, with each member of our company aware of his or her roles and responsibilities regarding environmental conservation.**

1. Throughout the lifecycle of our business operations, products and services, we promote activities such as the conservation of natural resources and energy, pollution prevention thereby reducing the environmental impact globally.
2. In addition to essentially observing the environmental laws and regulations of each country and region as well as other environmental agreements we conclude with other parties, when necessary, we apply voluntary environmental standards of our own on the basis of those regulations and agreements.
3. To implement our Environmental Policies, we specify environmental objectives, set up environmental targets, and regularly or extraordinarily reexamine the objectives and targets in view of current progress, thus ensuring continuous and proactive improvement.
4. We communicate our Basic Environmental Philosophy and Environmental Policies to all the persons working for Stanley Group, and we also gain the understanding and cooperation of our suppliers through informational efforts.
5. We make our Basic Environmental Philosophy and Environmental Policies accessible to the general public, and we report the progress of our environmental activities in order to increase communication with the local community, when requested.
6. We actively participate in the environmental conservation activities of the local communities in collaboration with governmental agencies or other local or affiliated organizations.

## Environmental Long-Term Management Plan

In order to achieve the sustainable development of society and business, we have formulated an Environmental Long-Term Management Plan (April 2010 to March 2020) in order to promote environmental management, and are working to address environmental challenges such as the prevention of global warming.

### Environmental Activities of the Stanley Group

#### Basic Environmental Philosophy

Environmental Proclamation

#### Environmental Policies

#### Environmental Long-Term Management Plan

#### Activities that Aim for the Sustainable Development of Society and Business

##### Strengthening management systems

##### Prevention of global warming

##### Resource recycling / waste reduction

##### Prevention of pollution

##### Phase IV Environmental Mid-Term Management Plan (April 2010 to March 2014)

##### Phase V Environmental Mid-Term Management Plan (April 2014 to March 2017)

##### Phase VI Environmental Mid-Term Management Plan (April 2017 to March 2020)

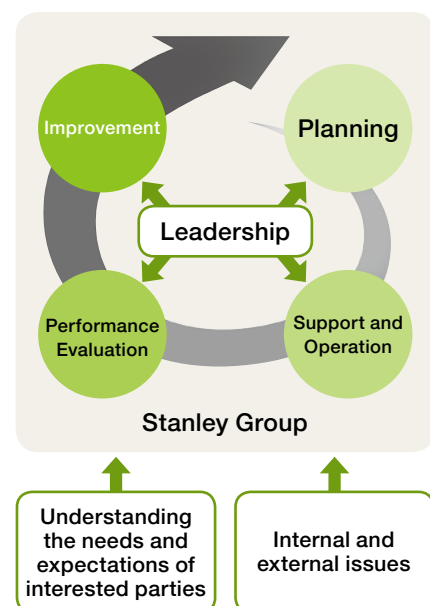
### The Stanley Group's Second Environmental Long-Term Management Plan

	Phase IV Environmental Mid-Term Management Plan (April 2010 to March 2014)	Phase V Environmental Mid-Term Management Plan (April 2014 to March 2017)	Phase VI Environmental Mid-Term Management Plan (April 2017 to March 2020)
Second Environmental Long-Term Management Plan	Achieve sustainable development for society and business/carry out manufacturing that contributes to the Earth's environment to achieve both social contribution and profit creation.		
	Create a foundation for environmental management	Promote environmental management and start expanding it globally	Promote the global expansion of environmental management
Strengthening initiatives for our Environmental Management System (EMS)	Regulate a global Environmental Management System		
	<b>Domestic</b> Improve the efficiency of operation through EMS integration	Strengthen the regulated EMS activities	Promote self-sufficient EMS activities at each base
	<b>Overseas</b> Prepare for global EMS integration	Promote global EMS	Promote self-sufficient EMS activities globally
Initiatives for environmental regulations	Continue complying with regulations related to business activities		
Design for Environment	Offer products designed for the environment that will contribute to the Earth's environment (continuously)		
Prevention of global warming	Promote the prevention of global warming / reduce greenhouse gas emissions through business processes		
	<b>Domestic</b> Reductions of 1% a year or more relative to FY 2009 in basic added value units		
		<b>Overseas</b> Reductions of 1% a year or more relative to FY 2013 in basic added value units	
	<Distribution region> Reductions of 1% a year or more relative to FY 2009 in sales basic units	<Distribution region> Reductions of 1% a year or more relative to FY 2012 in sales basic units	
Resource recycling / waste reduction	Deploy and strive for activities that do not generate waste globally Continue with zero emissions		
	Reduce waste - Reductions of 1% a year or more relative to FY 2009 in basic added value units	Reduce waste - Reductions of 1% a year or more relative to FY 2012 in basic added value units	
Prevention of pollution /product environment	Completely eliminate environmental accidents by thoroughly ensuring that no substances of environmental concern are used		
	Strengthen management foundations to accommodate global expansion	Continue with zero environmental defects	
Initiatives for biodiversity	Actively contribute to regional ecosystem protection activities		

\* In 2013 we revised our Environmental Long-Term Management Plan so that Phase V started from April 2014.

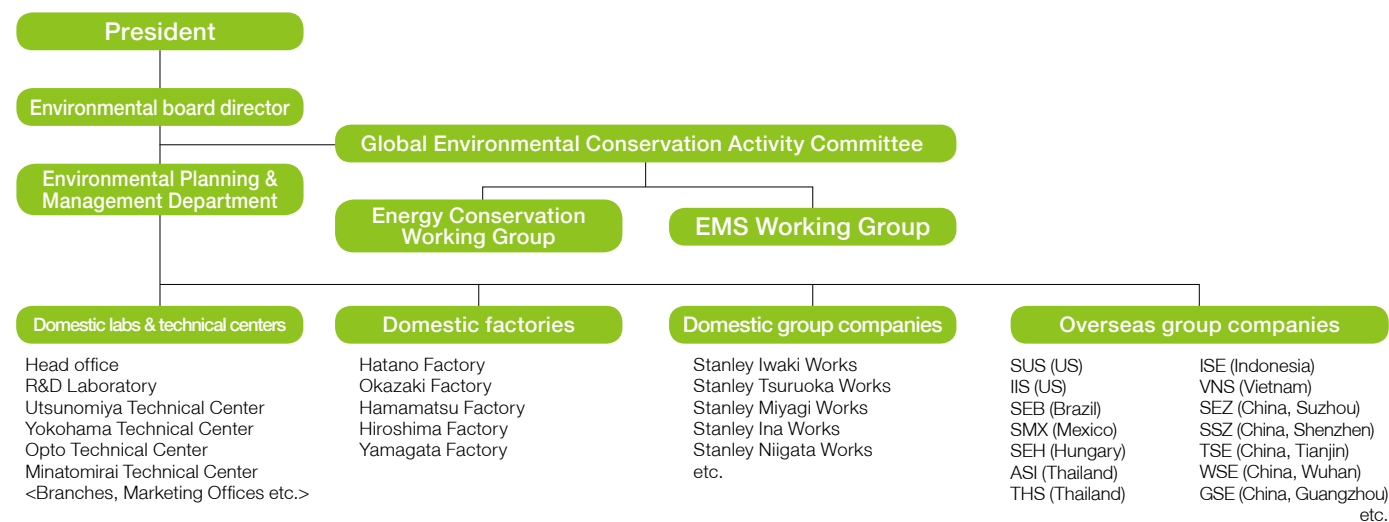
## Environmental Management System

The Stanley Group has erected an Environmental Management System (EMS) based upon ISO 14001 international standards and promotes long-term environmental management plans and addresses environmental activities based on our Environmental Policies across the group as a whole.



## Environmental Management Structure

We have created an environmental management structure with an environmental board director as its highest officer under the president. What is more, we have set up the Environmental Planning & Management Department as a department to promote environmental management, and we work to ensure administrative control. We also established the Global Environmental Conservation Activity Committee in order to oversee the Stanley Group as a whole to promote environmental activities through the combined efforts of our domestic and overseas group companies.



\*These are the informal names of our overseas group companies. See P04 for their official names.

<b>Global Environmental Conservation Activity Committee</b>	Discusses environmental strategies and regulatory affairs from a global standpoint; optimizes and maintains the environmental management system to realize the Basic Environmental Philosophy and the Environmental Policies.
<b>Energy Conservation Working Group</b>	Facilitates energy conservation by drafting and promoting policies related to the Stanley Group's energy management.
<b>EMS Working Group</b>	Optimizes and makes continuous improvements to environmental management systems with a view towards galvanizing and increasing the efficiency of environmental activities and strengthening monitoring functions.
<b>Environmental Planning &amp; Management Department</b>	Advances the environmental management system of the whole Stanley Group, including domestic and overseas subsidiaries, and works to plan and undertake administrative control for the full spectrum of our environmental activities.

## Environmental Education

We provide environmental education divided into the categories of training according to personnel position and job type, training according to occupational abilities (strategic education) such as certification education for internal environmental auditors, and training according to occupational abilities (function segmented education) which is aimed at employees engaged in operations related to the environment.

### Trainings by personnel position, job type

#### New manager training

Management of environment related laws and regulations and our environmental challenges

#### New supervisors training

General environmental knowledge and awareness, and environment al knowledge pertaining to environment-related laws and regulations and duties as a supervisor

#### Mid-career recruits trainings

General environmental knowledge and awareness, and environmental knowledge pertaining to duties

#### New recruits training

General environmental knowledge and awareness required of employees as members of society

### Trainings by work skill (strategic education)

#### Qualification training for in-house environmental auditors

Understanding of ISO 14001 requirements and learning auditing techniques

#### Skill-up training for in-house environmental auditors

Auditing expertise training for sustained environmental improvements and improving auditing techniques

#### Train environmental regulations

Understanding of environmental regulations

#### Train substances of environmental concern investigation instructors

Gaining of skills to analyze and detect substances of environmental concern in products

### Trainings by work skill (functional education)

#### EMS education & training

- Education based on the divisional education plan
- Seminars outside the company
- Jobs relating to education/training
  - Jobs with the potential to cause a considerable environmental impact
- Education relating to awareness (policies, objectives, emergency actions, etc.)
  - Subject to all employees, outside personnel working at Stanley, personnel of commissioned agents
- Education & training for qualification
  - Jobs that have a considerable environmental impact (i.e. designated environmental jobs)

## Environmental Management Auditing

We consider Environmental Management System (EMS) auditing to be essential for the sake of continuously improving the EMS. The Stanley Group conducts auditing through internal environmental auditors, as well as external audits through third party certifying agencies.

### Internal Environmental Audits

#### Striving to maintain and improve our level of environmental management

We carry out internal environmental audits by forming independent in-house auditor teams comprised of internal environmental auditors who have been certified internally. Our domestic group companies implement audits by environmental management supervisors at each base on a reciprocal basis to promote the maintenance and improvement of the EMS level at each base.

### External Audits

#### Checking to confirm items that need improvement through regular external audits

Our domestic group companies have received integrated authentication as Stanley Electric Co., Ltd., and include all of our factories and laboratories, our head office, branch offices, and affiliates in Japan. These companies and our overseas group companies undergo external audits regularly once per year, as well as renewal inspections once every three years at each base, through third party certifying agencies.

The results of an external audit from FY 2018 indicated that issues that had previously been pointed out had already been completely corrected, and we have finished deploying these corrections laterally at each base around the globe.

## Environmental Risk Management

### Initiatives for Environmental Risk Management

#### Observing domestic and foreign regulations and promoting the reduction and elimination of harmful chemical substances

We observe all domestic and foreign environmental regulations, and work to reduce and eliminate harmful chemical substances (substances which are contained in products and those which are used during their manufacture). One such initiative is to carry out development, design, and purchasing management for products that do not contain harmful chemical substances on the basis of management criteria for substances of environmental concern.

With regard to regulations and controls, we are promoting compliance with the PRTR Law and the revised Law concerning the Rational Use of Energy, as well as the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and others. To prevent environmental accidents in advance, we have instituted environmental patrols and checks during internal environmental audits.

### Management of Substances of Environmental Concern

#### Gathering information on related regulations and customer demands, and promoting sound regulatory compliance

In recent years, laws and regulations on chemical substance management have been growing stricter and stricter around the world as the globalization of regulations advances.

The Stanley Group gathers and complies with information on related regulations and customer demands, and promotes the initiatives listed on the right for the sake of sound regulatory compliance.

#### Internal Structure for Managing Information on Substances of Environmental Concern

- Promoting the Development of Design for the Environment through the Use of a Database of Substances of Environmental Concern

We meticulously collect and confirm the suitability of information on the substances of environmental concern contained in the parts and raw materials that make up our products with the understanding and cooperation of our suppliers. Moreover, by recording this information on the substances of environmental concern to an internal database and sharing this we make efforts to select components that do not contain such harmful chemical substances, while also working to design and develop environmentally conscious products.

- Establish and Strengthen a Structure for Managing Substances of Environmental Concern

We periodically carry out audits on our structure for managing substances of environmental concern at our production bases in Japan and overseas and promote initiatives to strengthen this.

### Major Initiatives for FY 2018

- Centralized management of SDSs

Safety Data Sheets (SDSs) are used to record information related to the physicochemical properties of chemical substances, as well as their dangerous and hazardous properties and handling methods. The Stanley Group has created a structure for obtaining and recording SDS information through the use of our internal systems, which has enabled us to manage this in a centralized manner via a database. This has made it easier to perform latest version management and eliminate waste caused by the discrete management performed at each base. At the same time, being able to determine the chemical substances used at all of our bases allows us to conduct thorough risk management. In addition, we offer safety education to our workers through the use of the latest version of the SDS, and work to thoroughly notify them of information on risks and hazards by posting these SDSs in the workplace.

- Making progress on ridding our products of substances of environmental concern

To ensure that the chemical substances contained in our products do not adversely affect the environment, the Stanley Group uses a database of substances of environmental concern in working to determine the usage status of these substances and cut down on them.

In July 2019, four types of phthalates will be added as newly restricted substances under the RoHS Directives targeting electrical and electronic products. As a result, our Group went through and selected the parts that contain these substances, which include automotive products, from our database of substances of environmental concern and has been promoting their systematic replacement. In FY 2018 we finished replacing these in our mass-produced products, which had been given precedence.

## Initiatives through Our Supply Chain

### Promoting our Green Procurement Guidelines

For our environmental conservation activities, we must reduce the environmental impact over the entire lifecycle of our products, from the procurement of materials through to their production, sale, use, disposal, and recycling. As it is not enough to work towards this through the initiatives of individual companies alone, the Stanley Group actively engages in the procurement of environmentally friendly products and promotes the reduction of our environmental impact through mutual cooperation with our suppliers.

We have established Green Procurement Guidelines for the Stanley Group to allow us to continue promoting initiatives through our supply chain, and work to reduce our environmental impact through coordination with our suppliers.

In our Green Procurement Guidelines, we primarily ask the following six requests of our suppliers.

1. Understand and cooperate with our environmental goals, targets, and requirements
2. Establish an environmental management system (EMS)
3. Thoroughly manage substances of environmental concern
4. Promote initiatives to determine and reduce emissions of greenhouse gases (GHG)
5. Promote initiatives to reduce the amount of waste generated and the amount of water used
6. Promote the recycling of resources

## Green Procurement Policies

### Holding yearly meetings to explain our purchasing policies

Stanley Electric holds yearly meetings to explain our purchasing policies to our major suppliers based on our green procurement policies, and continues to further strengthen and promote environmental initiatives and green procurement.

As for our activities to reduce greenhouse gas emissions starting in FY 2015, we are making efforts designed to reduce our basic units for CO<sub>2</sub> emission by 1% or more over the entirety of our supply chain.

Continuing on from the previous fiscal year, in FY 2018 we commended two of our suppliers that reduced CO<sub>2</sub> emissions by 1% or more on a basic unit-basis and carried out outstanding initiatives to improve the environment during the target period with our Green Procurement Award. We will continue to enhance reductions over the entirety of our supply chain.



## Environmental Risk Management

### PRTR Substances

**We reduced the amount of chemical substances we used by 40.4% YOY, thus achieving our basic unit target**

Pursuant to the PRTR Law, we determine the emissions and transfer of chemical substances which are subject to said law. In FY 2018 our emissions and amount transferred came to 33.9t (decrease of 4.8% YOY) and 10.5t (decrease of 3.7% YOY), respectively.

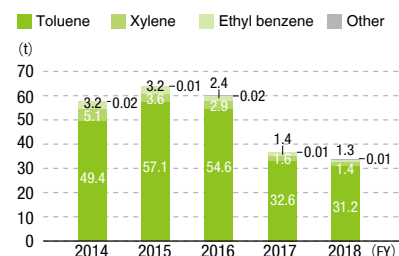
Furthermore, we adopted basic unit management for chemical substances, including substances subject to PRTR.

We worked towards our goal of 1.09t/.1 billion yen or less for basic added value units for FY 2018 (decrease relative to FY 2014), which we achieved by coming in at 0.65t/.1 billion yen (decrease of 40.4% relative to FY 2014).

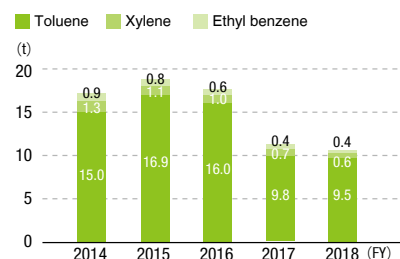
Records of PRTR-designated Class 1 Chemicals (Data from Notifying Factories) (t)

	Objective	FY2014	FY2015	FY2016	FY2017	FY2018
Emissions	Atmospheric emissions	57.8	63.9	59.9	35.6	33.9
	Emissions into public water systems	0.0	0.0	0.0	0.0	0.0
	Emissions into the soil on premises	0.0	0.0	0.0	0.0	0.0
	Landfill disposal on premises	0.0	0.0	0.0	0.0	0.0
	Total emissions	57.8	63.9	59.9	35.6	33.9
Amount transferred	Transfer to sewage	0.0	0.0	0.0	0.0	0.0
	Transfer to outside	17.1	18.9	17.6	10.9	10.5
	Total amount transferred	17.1	18.9	17.6	10.9	10.5

Changes in Emissions by Type of Substance Requiring Notification under PRTR



Changes in the Amount Transferred by Type of Substance Requiring Notification under PRTR



### Management of Polychlorinated Biphenyl (PCB)

#### Management and treatment pursuant to law

We promote rigorous storage, control, and treatment of PCB pursuant to the Special Measures Law for the Proper Treatment of Polychlorinated Biphenyl Wastes.

In FY 2018, treatment of one transformer was completed and our storage status is shown in the table on the right. We have already finished registering the treatment of PCB wastes with regard to the storage equipment with a waste treatment contractor, and will treat this in sequence.

PCB storage equipment

Equipment	No. of units
Capacitor	109
Stabilizer	16
Total	125

### Soil Contamination Surveys

#### A survey was carried out at one location

The survey results for FY 2018 are listed below.

For the future, we will continue to carry out surveys and confirm the soil contamination conditions, which we will cope with based on laws and ordinances.

Branch	Survey results
Hatano Factory	A survey was conducted on the basis of the Soil Pollution Countermeasures Act following the replacement of equipment and the plan to construct the Light Tunnel Tower at the adjacent site. As a result, it was confirmed that there was no soil pollution.

### Responding to complaints

#### Working to coexist with local communities at one location

In FY 2018 we received the following environmental complaint from a neighboring area, for which we promptly took countermeasures.

Branch	Occurrence period (countermeasure implementation period)	Details of the complaint	Response results
Hatano Factory	May 2018 (May 2018)	Noise / vibration	We made changes to the heavy machinery and installed ditches as a result of the demolition work for the former inorganic waste treatment building in an effort to reduce noise and vibration. We also thoroughly explained the details of the construction work.

## Compliance with Laws and Ordinances

### We regularly confirm our compliance status

Our domestic group companies perform internal audits at each base based on the Checklist of Environmental Laws and Regulations prepared by our Environmental Planning & Management Department to confirm their compliance status. In addition, each of our bases performs reciprocal internal environmental audits on one another in an effort to thoroughly ensure compliance with laws and regulations.

For our overseas group companies, starting in FY 2016, our Environmental Planning & Management Department in Japan began using external agencies to get a grasp of legal and regulatory trends in different countries. A checklist is prepared based on this which is then used to regularly confirm their legal and regulatory compliance status in order to strengthen management for said compliance.

In addition, both our domestic and overseas group companies check to confirm whether the results of their legal and regulatory checks are appropriate via external audits in aiming to thoroughly ensure compliance.

## Environment-related Awards

### Appraisal for our environmental initiatives

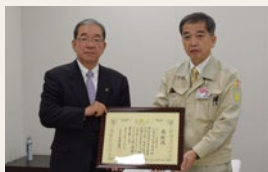
At the Stanley Group, for the sake of environmental risk management we undertake various initiatives to prevent environmental accidents at each of our offices and to reduce our impact on the environment.

In FY 2018 our day-to-day activities were commended by relevant agencies as described below.

#### Thank-you letter from the Mayor of Higashihiroshima

For the torrential downpours in July 2018, Stanley Electric donated a combined total of 10 million yen to Higashihiroshima City in Hiroshima Prefecture and Kurashiki City in Okayama Prefecture to be put to use to support all of the victims of the disaster and for the reconstruction of the afflicted region.

In response to this, the Mayor of Higashihiroshima visited our Hiroshima Factory and presented us with a thank-you letter. Moreover, many of the employees from our Hiroshima Factory, which is located in the afflicted region, participated by serving as disaster volunteers and carried out environmental maintenance and improvements. It is our heartfelt hope that the afflicted region will recover as quickly as possible.



### Thai Stanley won the Environmental Award (E-Award)

In March 2019, Thai Stanley won the E-Award from Honda Thailand at its 25th All Honda Thai Suppliers Conference. This was awarded exclusively to Thai Stanley from among all of the eligible suppliers for the company's overall score with respect to environmental management, low-



carbon activities, supply chain conditions, and onsite verification based on Honda Thailand's environmental perspective. Thai Stanley has instituted a variety of energy-saving activities in an ongoing manner, including promoting shared use of the exhaust fans in its machinery zones, reassessing the heights of the ceilings in its air-conditioned areas, and converting its molding machines from hydraulic to electric types. This positive appraisal of Thai Stanley's environmental activities has furnished it with the vitality to further promote its environmental activities.

### Results of the Nikkei Environmental Management Survey

Every year, Nikkei Inc. performs the Nikkei Environmental Management Survey on major companies in Japan to assess their corporate initiatives for balancing environmental measures with business management. The results of this are released as both a score and a ranking.

There are five evaluation indicators: Structure for promoting environmental management, pollution countermeasures and handling of biodiversity, resource recycling, product measures, and countermeasures against global warming. Each of these is evaluated out of 100 points for a total score of 500 points.

The Stanley Group replies to this survey every year. For the FY 2018 survey we increased our score to a total of 445 points, coming in at 54th place out of 360 companies (this is an improvement in our ranking by 55 places from FY 2017). This was largely due to the praise we received from the contributions we made to cutting CO<sub>2</sub> emissions by using solar power to generate our own power and our initiatives for the SDGs, among others. For the future, we will continue to use this as one indicator for objectively assessing the status of the Stanley Group's environmental activities as we work to improve the environment.

## Environmental Performance

The Stanley Group promotes a variety of different environmental conservation initiatives for the prevention of global warming and the like.

In order to continue to effectively advance our activities, we quantitatively determine the impact on the environment from our business activities and the results of our countermeasures to this. We address this in an ongoing manner with the understanding that is it important to continue evaluating our environmental performance.

## Results of Activities from FY 2018

The Stanley Group's major targets for FY 2018 and their achievement status are listed at right.

We also take opportunities to proactively provide education designed to encourage a raised awareness of the environment among our employees, such as regularly sending out environmental information and providing environmental e-learning.

Furthermore, we established the Environmental Award System, which awards employees who have made significant contributions to environment-related activities in the aim of invigorating and strengthening our environmental activities.

Moving forward, we will strive to thoroughly implement various environmental measures across the Stanley Group to achieve our environmental targets.

Item	Target	Results
Initiatives for environmental regulations	Continue complying with regulations related to business activities	Continue complying with regulations related to the environment
Design for Environment	Offer products designed for the environment that will contribute to the Earth's environment (continuously)	100% implementation of designs for the environment checklists Provide training for design-related departments
Prevention of global warming	<b>Domestic</b> Basic added value units of CO <sub>2</sub> : 79.6t-CO <sub>2</sub> /.1 billion yen or less (reduction of 9% or more relative to FY 2009)	<b>Domestic</b> Basic added value units of CO <sub>2</sub> : 71.6t-CO <sub>2</sub> /.1 billion yen (reduction of 18.2% relative to FY 2009)
	<b>Overseas</b> Basic added value units of CO <sub>2</sub> : 321.9t-CO <sub>2</sub> /.1 billion yen or less (reduction of 5% or more relative to FY 2013)	<b>Overseas</b> Basic added value units of CO <sub>2</sub> : 294.1t-CO <sub>2</sub> /.1 billion yen (reduction of 13.2% relative to FY 2013)
	<b>Domestic</b> Distribution region Sales basic units: 2.19t-CO <sub>2</sub> /.1 billion yen or less (reduction of 6% or more relative to FY 2012)	<b>Domestic</b> Distribution region Sales basic units: 2.24t-CO <sub>2</sub> /.1 billion yen (reduction of 3.9% relative to FY 2012)
Resource recycling / waste reduction	<b>Domestic</b> Basic added value units for the amount of waste generated: 5.42t/.1 billion yen or less (reduction of 6% or more relative to FY 2012)	<b>Domestic</b> Basic added value units for the amount of waste generated: 5.43t/.1 billion yen (reduction of 5.9% relative to FY 2012)
	<b>Overseas</b> Basic added value units for the amount of waste generated: 19.6t/.1 billion yen or less (reduction of 4% or more relative to FY 2014)	<b>Overseas</b> Basic added value units for the amount of waste generated: 14.2t/.1 billion yen (reduction of 30.3% relative to FY 2014)
	<b>Domestic</b> Continue with zero emissions (landfill disposal rate of 0.50% or less)	<b>Domestic</b> Continue with zero emissions (landfill disposal rate of 0.11%)
	<b>Domestic</b> Basic added value units for the amount of water used: 650m <sup>3</sup> /.1 billion yen or less (decrease relative to FY 2014)	<b>Domestic</b> Basic added value units for the amount of water used: 490m <sup>3</sup> /.1 billion yen or less (reduction of 24.7% relative to FY 2014)
	<b>Overseas</b> Basic added value units for the amount of water used: 1,220m <sup>3</sup> /.1 billion yen or less (decrease relative to FY 2014)	<b>Overseas</b> Basic added value units for the amount of water used: 1,030m <sup>3</sup> /.1 billion yen or less (reduction of 15.5% relative to FY 2014)
	<b>Domestic</b> Basic added value units for the amount of chemical substances used: 1.09t/.1 billion yen or less (decrease relative to FY 2014)	<b>Domestic</b> Basic added value units for the amount of chemical substances used: 0.65t/.1 billion yen (reduction of 40.4% relative to FY 2014)
Prevention of pollution / product environment	Continue with zero environmental defects	We verify the content of substances of environmental concern through x-ray fluorescence inspections and other means to continue with zero environmental accidents
Initiatives for biodiversity	Contribute to regional ecosystem protection activities	Institute social contribution activities and volunteer activities

## The Environmental Impact of our Business Activities

The major INPUT items for the environmental impact accompanying our business activities are the use of raw materials, energy, water, chemical substances, and vehicle fuel. Conversely, the OUTPUT items include CO<sub>2</sub> gas, NO<sub>x</sub>, and SO<sub>x</sub> for the atmosphere, while the impacts in water environments include biochemical oxygen demand (BOD) and chemical oxygen demand (COD).

This also includes factors like emissions of waste and chemical substances. Our environmental impact for FY 2018 is listed on the right.

We quantitatively determine the environmental impacts from these and carry out environmental conservation activities such as the conservation of resources and energy, as well as measures to reduce emissions of waste and chemical substances, in an ongoing manner.

### Environmental Impact of Our Business Activities in FY 2018

INPUT	
Raw Materials	Resin materials 28,625t ( -2.6%)
	Coating materials 292t ( 1.4%)
	Glass 120t ( -2.4%)
Energy	Electricity 154,762,000kWh ( 4.0%)
	Kerosene 90kℓ ( -22.4%)
	Light oil 10kℓ ( 100.0%)
	Heavy oil 745kℓ ( 14.6%)
	LPG 315t ( -2.8%)
	City gas 491,000Nm <sup>3</sup> ( 4.9%)
Water	Water supply 98,000m <sup>3</sup> ( -6.7%)
	Groundwater 247,000m <sup>3</sup> ( 7.4%)
	Other cistern water 61,000m <sup>3</sup> ( 10.9%)
Chemical Substances	* Targets chemicals subject to notification under the PRTR Law Amount handled 111t ( -8.3%)
Vehicle fuel	Gasoline 282kℓ ( -10.5%)
Energy	Electricity 527,392,000kWh ( 4.3%)
	Kerosene 0kℓ ( 0.0%)
	Light oil 515kℓ ( -16.1%)
	Heavy oil 0kℓ ( 0.0%)
	LPG 548t ( 1.9%)
	Natural gas 5,050,000Nm <sup>3</sup> ( 6.8%)
Water	City gas 79,000Nm <sup>3</sup> ( 119.4%)
	Amount of water used 1,440,000m <sup>3</sup> ( 4.6%)
Vehicle fuel	Gasoline 744kℓ ( 0.8%)

Domestic group companies

Overseas group companies



The figures in parentheses are the percentage change YOY

OUTPUT	
Greenhouse gases	CO <sub>2</sub> 59,062t-CO <sub>2</sub> ( 3.9%)
Impact on the atmospheric environment	NO <sub>x</sub> 4.2t ( 27.3%)
	SO <sub>x</sub> 3.3t ( -5.7%)
Impact on water environments	BOD 7.3t ( 40.4%)
	COD 1.3t ( 18.2%)
Waste	
* The total amount generated is the total amount of waste and valuable materials	
Total amount generated	4,673t ( 9.5%)
Amount recycled	4,539t ( 9.0%)
Amount of landfill	5t ( 25.0%)
Chemical Substances	
* Targets chemicals subject to notification under the PRTR Law	
Amount emitted	33.9t ( -4.8%)
Amount transferred	10.5t ( -3.7%)
Greenhouse gases	CO <sub>2</sub> 411,357t-CO <sub>2</sub> ( 3.8%)
Waste	
* The total amount generated is the total amount of waste and valuable materials	
Total amount generated	19,928t ( -8.9%)

## Initiatives for the Prevention of Global Warming

Eliminating waste and minimizing energy use serves as the foundation for preventing global warming.

Electricity accounts for approximately 95% of the energy used by the Stanley Group, and so in order to prevent global warming we consider it of the utmost importance to reduce our power consumption and curb peak power usage, while also promoting reduction initiatives.

### Reduction Status for Emissions of CO<sub>2</sub>

Both our domestic and overseas group companies achieved their basic unit targets in FY 2018

In FY 2018 net emissions of CO<sub>2</sub> by our domestic group companies increased by 2,227t-CO<sub>2</sub> compared to the previous fiscal year, due to the increase in air conditioning usage fees caused by the heat waves over the summer, to come in at 59,062t-CO<sub>2</sub> (increase of 3.9% YOY). In terms of basic added value units, these companies made efforts to achieve our target of 79.6t-CO<sub>2</sub> / 1 billion yen or less (reduction of 9% or more relative to FY 2009), which they achieved when this came in at 71.6t-CO<sub>2</sub> / 1 billion yen (decrease of 18.2% relative to FY 2009).

Net emissions of CO<sub>2</sub> by our overseas group companies increased by 14,900t-CO<sub>2</sub> compared to the previous fiscal year to come in at 411,357t-CO<sub>2</sub> (increase of 3.8% YOY).

These companies made efforts to achieve our basic unit target of 321.9t-CO<sub>2</sub> / 1 billion yen or less (reduction of 5% or more relative to FY 2013), which they achieved when this came in at 294.1t-CO<sub>2</sub> / 1 billion yen (decrease of 13.2% relative to FY 2013).

Thus, in FY 2018 both our domestic and overseas group companies achieved their basic unit targets, continuing on from the previous fiscal year.

#### Domestic

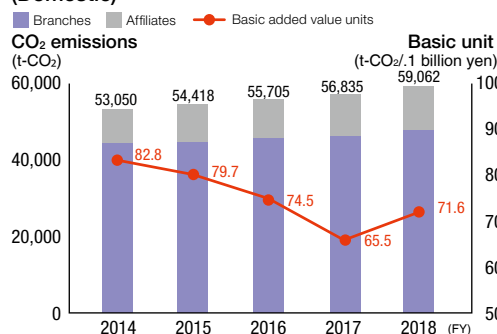
The CO<sub>2</sub> emission basic unit for the usage side announced by the Federation of Electric Power Companies of Japan was applied for the calculations of the amount of CO<sub>2</sub> pertaining to electricity.

#### Overseas

The amount of CO<sub>2</sub> was calculated based on the Survey Report on Estimating Basic Units for CO<sub>2</sub> Emissions from the Power Sectors of Each Country - Ver.3 compiled by the Japan Electrical Manufacturers' Association

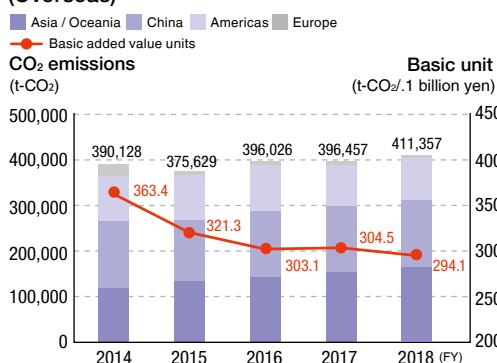
Changes in CO<sub>2</sub> Emissions and Basic Units

#### (Domestic)



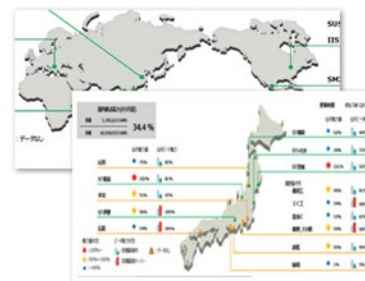
\* In FY 2018 we changed the domestic amount of added value to corporate performance figures, and therefore revised the data from the baseline fiscal year.

#### (Overseas)



### Promoting energy conservation through the use of an integrated power monitoring system

The Stanley Group has adopted an integrated power monitoring system as a tool for our energy reduction activities. The system aggregates data on the amount of power used by 27 of our major production factories, including domestic and overseas group companies, and performs intensive monitoring of this in real-time. The main feature of this system is that it makes it possible to get a grasp of the current power consumption status at our domestic and overseas factories at a glance. It displays yellow and red signals that serve as monthly estimates to indicate whether the current status is on track or off-pace to hit the targets that have been established. Initiatives are taken for those bases where red warnings are displayed, such as checking on the status of energy-saving measures, considering additional measures, and enhancing patrols on non-working days. As such, this is used as a tool for taking action before the final results come in. Moreover, since this makes it possible to compare the actual results with those of other factories, it promotes exchanges of information on and the lateral deployment of measures that achieve results. Proactively promoting energy saving measures through the use of this tool allowed both our domestic and overseas companies to achieve their targets for FY 2018, continuing on from the previous fiscal year.



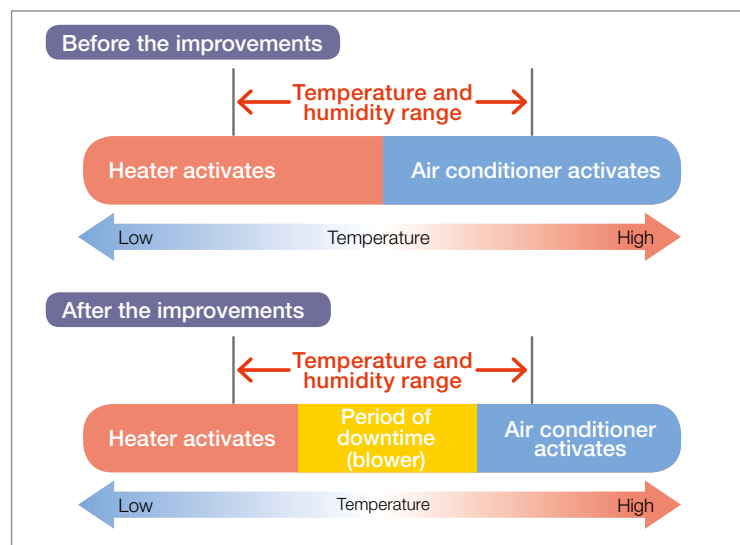
## Initiatives for the Prevention of Global Warming

### Initiatives geared towards moderating our energy use

#### Contributing to the prevention of global warming by optimizing energy use

- **Reducing electricity by improving the use of air conditioning**

Stanley Ina Works established periods of downtime when it did not run its air conditioners as a way to improve the use of air conditioning in its clean rooms. The air conditioning in clean rooms is regulated so that they stay within a predetermined temperature and humidity range in order to preserve the quality of products. This has been set up so that when the rooms are within this temperature and humidity range the air conditioning shuts off and switches over to blower mode, and when the conditions are about to deviate from this range the air conditioners begin operating. As a result, the factory reduced its annual emissions by 126t-CO<sub>2</sub> by reducing the electricity devoted to air conditioning.



- **Installing heat pumps on production equipment**

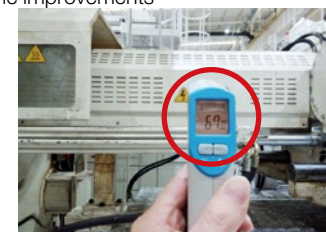
The Stanley Group is installing heat pumps on our production equipment in an effort to reduce energy consumption. Our Hatano Factory and Okazaki Factory both employ cleaning processes through the use of warm water as part of their production processes. They had previously used heaters in order to generate this warm water, but switching over to heat pumps allowed them to generate this hot water more efficiently, leading to annual reductions of 67t-CO<sub>2</sub>.



- **Energy-savings from countermeasures against heat dissipation**

Guangzhou Stanley Electric in China has worked to address countermeasures against heat dissipation from its molding machines. It replaced the heaters attached to the cylinders on its molding machines with nano infrared heaters that offer high heating efficiency, thereby reducing heat emissions to the outside from 67°C to 41°C without affecting quality. This improved heating performance and curtailed emissions of heat into indoor spaces, which in turn led to reducing the air conditioning burden, allowing them to achieve annual reductions of 985t-CO<sub>2</sub>.

Before the improvements



After the improvements



## Initiatives for Resource Recycling (Waste)

By way of resource recycling and waste reduction activities, at the development and design stages we curb the generation of waste by reducing the size and weight of our products, while at the manufacturing and disposal stages we implement measures like recycling activities through activities to improve yields and for sorting waste, while also working on zero emission activities to reduce landfill waste to close to zero.

### Status for Reducing the Total Waste Generated

Our overseas group companies achieved their basic unit targets in FY 2018

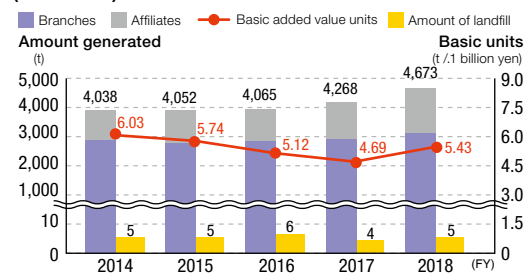
The amount of waste generated by our domestic group companies in FY 2018 increased by 405t compared to the previous fiscal year to 4,673t (increase of 9.5% YOY) due to increases in materials remaining from products and waste materials from protective films.

In terms of basic added value units, they worked towards our goal of 5.42t/1 billion yen or less (reduction of 6% or more relative to FY 2012) but failed to reach it when this came to 5.43t/1 billion yen (decrease of 5.9% relative to FY 2012). What is more, their amount of landfill came to 5t, giving them a 0.11% landfill disposal rate and enabling them to continue to achieve zero emissions.\*

The amount of waste generated by our overseas group companies decreased by 1,946t compared to the previous fiscal year to 19,928t (decrease of 8.9% YOY). They worked towards our goal for basic units of 19.6t/1 billion yen or less (reduction of 4% or more relative to FY 2014) and reached it when this came to 14.2t/1 billion yen (decrease of 30.3% relative to FY 2014).

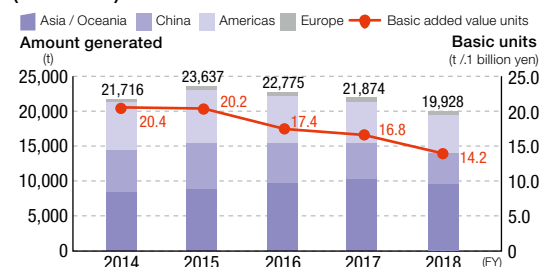
\* The value for our amount of landfill versus the amount of waste generated is less than 0.5% in terms of its ratio by weight

Changes in the Amount of Total Waste Generated and Basic Units (Domestic)



\* The value for our amount of landfill versus the amount of waste generated is less than 0.5% in terms of its ratio by weight

(Overseas)



### Reducing waste by detoxifying waste cleaning liquid Processing waste cleaning liquid internally

Our Yamagata Factory used to generate large volumes of waste cleaning liquid from its cleaning processes for products. So it worked to address internal processing for this waste cleaning liquid. It had previously relied upon a specialist contractor to handle the waste cleaning liquid processing, but devised a way to be able to process this in-house using its own purification processing equipment, enabling it to dispose of this as ordinary industrial wastewater. Processing this has led to annual waste reductions of 226t.

Before the changes



Plastic containers for collecting the waste liquid

After the changes



Washstand for waste liquid equipped with purification processing equipment

### Complying with import restrictions on waste plastics and other wastes

Enhancing initiatives over the entire lifecycle

Ever since import suspension measures targeting waste plastics and paper were initiated in China at the end of 2017, similar moves spread to Southeast Asian countries like Malaysia and Thailand in 2018. Roughly 70% of the amount of waste generated by our company consists of plastic and paper, and so we have been working harder than ever before to reduce our waste. Efforts for this include reducing raw materials at the design stage, reducing defects at the production stage, performing meticulous sorting, and more.

## Initiatives for Resource Recycling (Water)

When it comes to water, we work to curb the amount of water we use and reuse it by means of water conservation through awareness-raising activities and reassessing our manufacturing processes.

### Reduction status of water usage

Both our domestic and overseas group companies achieved their basic unit targets in FY 2018

Water usage by our domestic group companies in FY 2018 came to 406,000m<sup>3</sup>, an increase of 16,000m<sup>3</sup> compared to the previous fiscal year (increase of 4.1% YOY) due to the increase in the amount of water used by the sprinklers resulting from the heatwaves over the summer.

In terms of basic added value units, they worked towards our target of 650m<sup>3</sup>/.1 billion yen or less (decrease relative to FY 2014) which they achieved by coming in at 490m<sup>3</sup>/.1 billion yen (decrease of 24.7% relative to FY 2014).

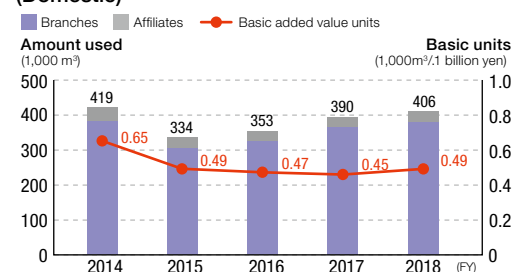
Water usage by our overseas group companies came to 1.44 million m<sup>3</sup>, an increase of 63,000m<sup>3</sup> compared to the previous fiscal year (increase of 4.6% YOY).

They worked towards our basic unit target of 1,220m<sup>3</sup>/.1 billion yen or less (decrease relative to FY 2014) which they achieved by coming in at 1,030m<sup>3</sup>/.1 billion yen (decrease of 15.5% relative to FY 2014).

Thus, in FY 2018 both our domestic and overseas group companies achieved their basic unit targets, continuing on from the previous fiscal year.

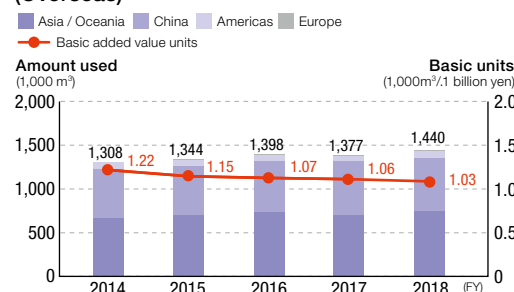
#### Changes in water usage and basic units

##### (Domestic)



\* In FY 2018 we changed the domestic amount of added value to corporate performance figures, and therefore revised the data from the baseline fiscal year.

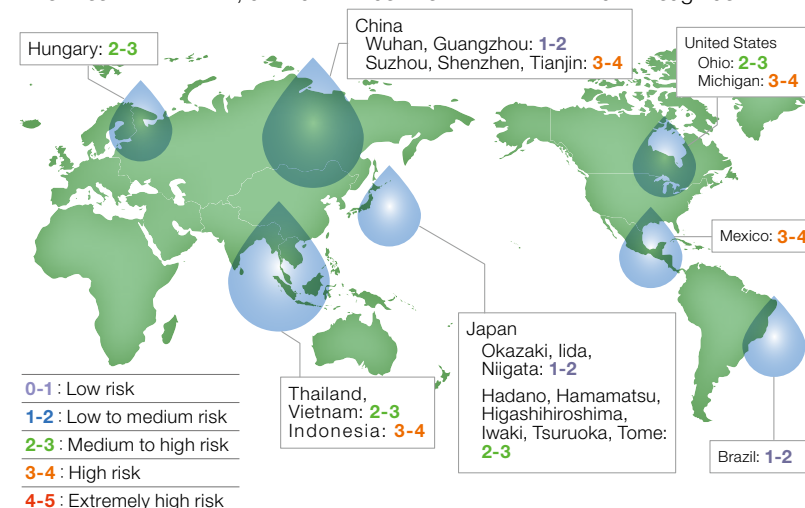
##### (Overseas)



### Initiatives related to water risks

#### Performing water risk evaluations

In recent years, a diverse array of water problems including water shortages and water contamination have grown increasingly severe, such that initiatives to combat water risks have come to pose an important challenge. The Stanley Group has been using Aqeduct\* from the World Resources Institute (WRI)\* as a way to perform comprehensive risk assessments at our major production bases in order to determine the water-related risks they face. The results of this have revealed that none of the regions where our group production bases are located fall under the category of "Extremely high risk." Moving forward, we will continue evaluating water risks in response to the establishment of new bases and changes in the business environment, and take measures to reduce our water usage as needed.



\* The World Resources Institute (WRI) is an independent agency based in the United States that engages in policy research and technological development related to global environmental and development issues  
 \* Aqeduct: A water risk evaluation tool developed by the WRI

## Design for Environment

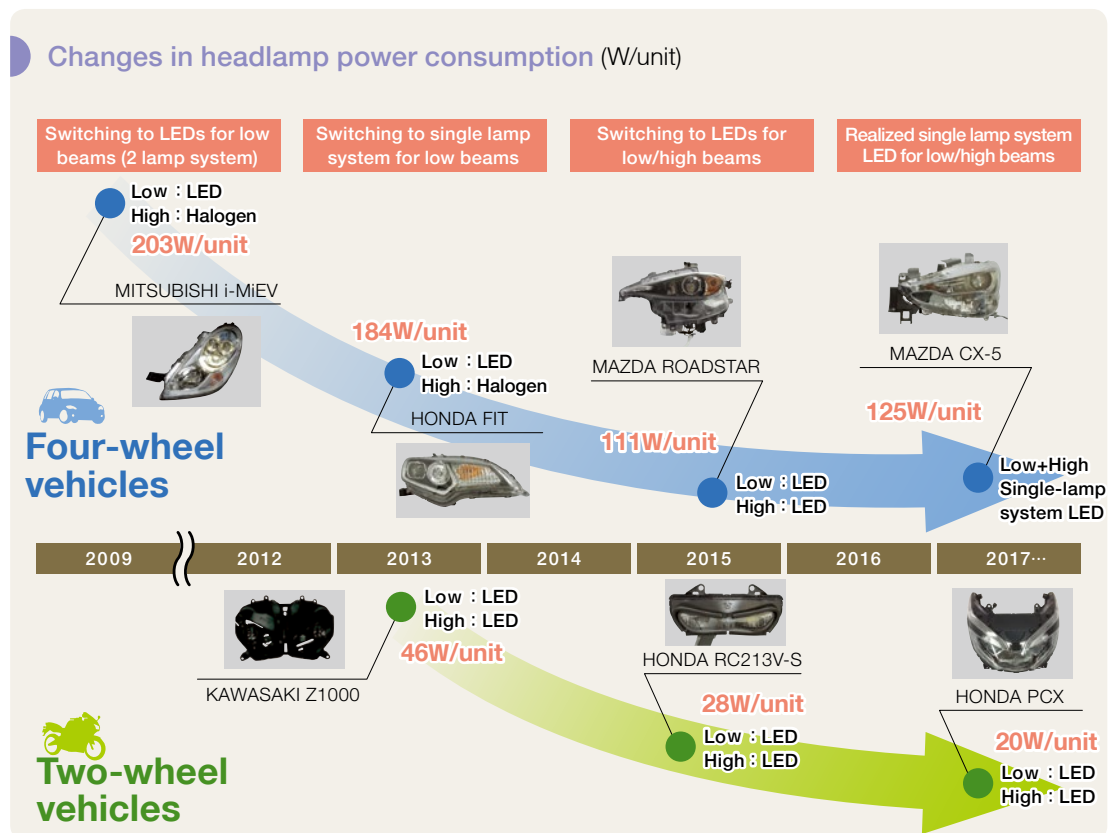
In order to minimize our impact on the environment to the extent possible and achieve the "creation of new values in harmony with the environment," we in the Stanley Group promote energy and resource conservation and the prevention of pollution over the entire life cycle of our products, while also working to cut down on our environmental impact globally.

### Headlamps

#### Disseminating energy-saving LED headlamps

Our LED headlamps come equipped on a variety of different vehicle models, including electric, hybrid, gasoline, diesel, and other vehicle types. We have worked to reduce the energy used by our headlamps, with this including their light sources. What is more, we have also expanded the adoption of LEDs on two-wheel vehicles in an effort to disseminate the energy-saving effects from switching to LEDs.

For the future, we will achieve even greater efficiency with our headlamps, while also developing LED light sources that are optimally suited as headlamps and further promoting energy savings.



\*Headlamp power consumption is measured not just for the low/high beams, but for the headlamp as a whole, including position lamps and turn signal lamps

### Rear combination lamps

#### Energy savings from LED light sources

Since the year 2000, we have made progress on changing rear combination lamps, including tail lamps and stop lights, over to LEDs. Compared with conventional incandescent light bulbs, LEDs have achieved reductions in power consumption of roughly 90%.

In addition, we will continue contributing to cutting CO<sub>2</sub> by striving to conserve power through even more efficient use of light and by reducing the weight of our lamps.

## Design for Environment

### Life Cycle Assessment (LCA)

#### Promoting design for the environment through the use of a checklist

In order to promote the manufacture of products designed for the environment we use our Design for Environment Guidelines and apply them to the full range of our product design. We perform evaluations through the use of checklists in order to reduce our impact on the environment to the extent possible.

We revised our approach to evaluating these in FY 2017 and now use a six-item checklist that includes: ① **energy conservation**, ② **environmental conservation**, ③ **reducing**, ④ **reuse and recycling**, ⑤ **packaging**, and ⑥ **provision of information**. Our designers personally quantify and evaluate these in an effort to improve our environmental friendliness.

What is more, our checklists allow us to determine the CO<sub>2</sub> emissions given off in every step from the selection of the raw materials to the manufacturing of the product and its delivery to customers.

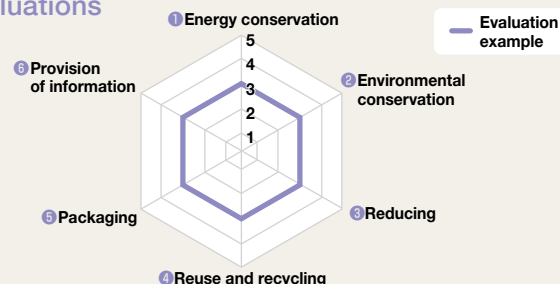
#### Overview of the Evaluations

##### Evaluations via Checklists

As indicated in the figure on the right, we perform quantitative evaluations for different items on a five-point scale in the aim of creating more products designed for the environment.

##### ※Supplement to the evaluation items

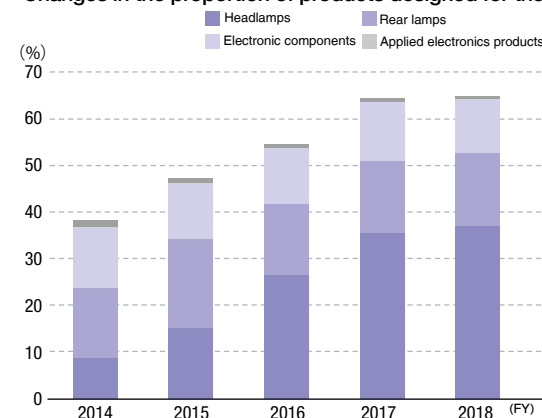
- ② **Environmental conservation:** We must meet standards like the REACH Regulations and RoHS Directive. But over and above these, we are aiming to meet our own, even stricter, voluntary standards.
- ⑥ **Provision of information:** We disclose environmental items that warrant attention as stipulated by law. On top of this, we aim to disclose information based on the guidelines of industry associations and the like.



#### Major Initiatives in FY 2018

- Through the use of our Design for Environment Guidelines and Design for Environment Checklist, we assess the environmental friendliness of all of our products using identical indicators, which allows us to get a grasp of their strengths and weaknesses. This enables us to design products where the environmental impact is kept to a minimum throughout the entire lifecycle of the product.
- In FY 2018, we created a version of this checklist for automobiles by taking our traditional checklist and tailoring it for automobile products, and made this a tool for designing products with enhanced environmental friendliness. We also made efforts to improve the environmental friendliness of our products with respect to the following points.
  - Reducing power consumption during manufacturing via designs that reduce the number of parts and improve assemblability
  - Improving recyclability via designs that thoroughly ensure the labelling of materials for resin parts
- We provide education to those involved in the design process regarding the use of these checklists, and have also made efforts to thoroughly ensure that evaluations can be performed effectively and efficiently. Moving forward, we will create checklists that are tailored to each product as we continue to promote the development of environmentally friendly products.

#### Changes in the proportion of products designed for the environment



The percentage of our sales accounted for by products designed for the environment over the past five years is shown in the above graph.

Our share of sales of environmentally friendly products has been rising year by year as a result of the increase in sales of headlamps that use LEDs, and now account for more than 65% of our products.

## Scope 3

To date, the Stanley Group has determined and worked on reduction activities for Scope 1 and Scope 2, which represent emissions of greenhouse gases (GHG) for our company's section, from before, as well as "9. Transportation and delivery (downstream)," which is one of the items under Scope 3. This is done in an effort to prevent global warming and comply with regulations.

Since FY 2010, we have made efforts to determine "1. Purchased products and services," which is a supplier section under Scope 3. What is more, since FY 2015 we have been working to get a grasp of "6. Business trips" for employees and "7. Employee commuting," and since FY 2016 we have worked to determine the extent of our activities regarding "5. Waste from business activities," thereby increasing the number of survey categories as described below.

Moving forward, we will improve the accuracy of our calculations for each category to further promote reduction activities as we work to reduce our environmental impact across our supply chain as a whole.

Scope category			Emissions (t-CO <sub>2</sub> )		Subject to calculations
			FY 2017	FY 2018	
Scope 1			4,746	4,895	Direct emissions from the use of fuel internally
Scope 2			52,089	54,167	Indirect emissions from the use of electricity we purchased
Scope 3	1	Purchased products and services	46,621	49,392	Emissions from activities leading up to the use of raw materials, the materials used in parts, and so forth in manufacturing
	5	Waste from business activities	2,929	1,986	Emissions resulting from the transport and disposal of the waste we generate
	6	Business trips	2,096	2,267	Emissions from employee business trips
	7	Employee commuting	4,959	5,574	Emissions from travel when employees commute to and from their branch
	9	Delivery and transportation (downstream)	4,650	4,668	Emission from the transport and storage of products
Total for Scopes 1, 2, and 3			118,090	122,949	

## Investments and Costs for Environmental Conservation Activities and Results

The Stanley Group determines the costs required for environmental conservation activities and the results obtained from these in order to promote environmental conservation activities efficiently and effectively. The values for FY 2018 for the domestic group companies are listed below.

By means of determining our environmental conservation results, we will continue to undertake capital investments that are efficient and effective and deploy business activities that give greater consideration to the environment on into the future.

### Environmental conservation costs

(Million yen)

Category		Details of major initiatives	Investments	Costs
Business area costs	Pollution prevention costs	Air pollution prevention, water pollution prevention, noise / vibration prevention, other pollution prevention	0	45
	Global environmental conservation costs	Global warming prevention and energy savings, prevention of ozone layer depletion, and other forms of global environmental conservation	340	36
	Resource recycling costs	Waste disposal	0	134
Management activity costs		Costs related to EMS, monitoring / measurement, environmental education	0	4
Social activity costs		Donations to / support for organizations engaged in environmental conservation	0	1
Environmental damage response costs		Soil pollution countermeasures	0	0
Total			340	220

### Environmental conservation results

(t-CO<sub>2</sub>)

Item	Details	Results
Energy conservation	Energy conservation measures such as capital investments and operational improvements	3,767

### Economic results from environmental conservation measures

(Million yen)

Item	Details	Results
Energy conservation	Cost savings from energy conservation measures	172
Resource conservation	Gains from the sale of waste that has been turned into valuables	114

※ Items with a "0" displayed in them indicate that they are below one million yen or not applicable.

# Relations with Communities

As a member of society, the Stanley Group not only contributes to society through its business activities, but also makes efforts that enable us to maintain better relations with local communities. We also work to contribute to society through a variety of different activities, such as volunteer activities by our employees.

## Environmental Communication

### External Communication

The Stanley Group introduces people to things like our environmentally conscious efforts through our products via displays at exhibitions and venues for a diverse array of activities.

#### ● Raising awareness of energy at events

The Soene Akari Park 2018 was held in Ueno Park for five days starting from October 31, 2018. This event combines Japan's newest energy generation and energy saving technologies with the latest in lighting technology with the objectives of giving people a feel for the bright, beautiful, fun future of light, while also having them take a greater interest in energy. As such, Stanley cosponsors and participates in this event every year. This time, we deepened people's understanding of our environmental initiatives through efforts like experiments on power generation that gave visitors a real feel for the excellent energy-savings from LEDs and displays of our headlamps, a pyramid-shaped light-based artwork, and demonstrations of our golden LED floodlights.



Power generation experiments for light bulbs and LEDs



A pyramid-shaped light-based artwork with Sign Magic built in



Illuminating a cherry blossom tree with LED floodlights that distribute golden light via an ultra-narrow angle

#### ● Stanley Well employees took part in the Minori-no-le Bazaar

Employees from Stanley Well took part in a bazaar hosted by Be Happy Minori-no-le, a social welfare service corporation, in July 2018. Stanley Well and Minori-no-le are associated with one another in a variety of different ways through their activities to support the employment of the disabled. Together with this, its employees have carried out activities to support the Minori-no-le Bazaar as part of Stanley's social contribution activities since about seven years ago. Our social contributions and promotion of reusing secondhand clothing and daily necessities at the bazaar form part of our efforts to conserve the environment.



### Internal Communication

Raising environmental awareness by sending out environmental information and holding events

#### ● Raising environmental awareness via environmental information

We promote a work culture and human resource development that allow each and every employee of the Stanley Group to remain environmentally aware at all times and proactively engage in environmentally friendly conduct in all sorts of social, community, and corporate settings.

Starting from August 2016, we began newly issuing a publication called Green Information on a regular basis in an effort to raise environmental awareness. This is designed to provide our employees with an understanding of environmental protection activities and to serve as a reference for their day-to-day environmental activities.



#### ● Holding of environmental events at Thai Stanley

Thai Stanley held a wide variety of events on World Environment Day and Thai Environment Day, such as a photo contest on the theme of environmental conservation, curtailing the number of plastic bags handed out by its in-house convenience store, and offering environmental education. Chief among such efforts is its Green Factory Project, which marked its ninth year of having employees undertake environmental activities in a proactive manner such as planting trees every year. In FY 2018, Thai Stanley unveiled its new environmental mascot named "Envii," and is working on communication based around the keyword of the "environment" through the participation of a large number of its employees.



## Relations with Communities

## Social Contributions

## Initiatives for Biodiversity

The Stanley Group strives to improve the environment in communities by reducing our environmental impact by optimizing the amounts of energy and raw materials used, as well as by offering environmentally friendly products. These are just a few examples of how we work towards both biodiversity conservation through our business activities and social contribution activities like volunteering.

## Community Environmental Activities

## Taking part in social activities

## Hosting Charity Events to Support the Construction of Schools in Kenya

## ● Hosting the Stanley Ladies Golf Tournament

Every year Stanley Electric sponsors the Stanley Ladies Golf Tournament, which is sanctioned by the Ladies Professional Golfers' Association of Japan. For FY 2018 we carried on in holding this as the Assistance for the Construction of Schools in Kenya charity program. The prize money of 10.06 million yen, which was based on the scores of the participating golfers, was donated to activities that provide assistance for the construction of schools in Kenya through Plan International Japan. In addition, we also carried out various other environmentally friendly activities, such as sorting garbage at the venue and donating the equivalent of 9,750 saplings to the Shizuoka Prefecture Forest Union Association.



## Community and Home Initiatives

Carrying out clean-up activities in different regions with community members

## ● Clean-up Activities



Hatano Factory –  
Clean-up activities together  
with local companies



Okazaki Factory



Hamamatsu Factory



Utsunomiya Technical  
Center



Three branches in the  
Yokohama District



Asaka  
Branch



Tianjin Stanley  
Electric (China)

## ◀Views

Supporting a fan marathon where people can eat, drink, run, and have fun

Jun Goto

Administration Department, Stanley Miyagi Works

The Tohoku Food Marathon & Festival 2019 was held in Tome City, Miyagi Prefecture on March 23 and 24, 2019 with the support of Stanley Miyagi Works. The event was a place for people to enjoy food and sake from Tohoku region, as well as sports, with the goal of promoting regional exchange and industry.

The factory offered its employee parking lot (with roughly 200 parking spots) as a parking lot exclusively for the participating runners. Prior to the event, employees from the factory cleaned up areas that included the surrounding roads out of a desire to both offer the runners a parking lot they could use comfortably and to give them the impression that this is a clean factory located in a clean industrial park.

