

CSR Report 2019

Maximizing energy conversion
efficiency for the benefit of
humanity and society.

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Reporting period

This report focuses on the results of activities in FY2018 (from April 1, 2018 to March 31, 2019).

Organizations covered in this report

I Shindengen Electric Manufacturing Co., Ltd., Shindengen Group

Reference Guidelines

- ISO 26000 - 2010
- Environmental Reporting Guidelines 2012, Ministry of the Environment of Japan
- Environmental Accounting Guidelines 2005, Ministry of the Environment of Japan

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Top Message

Management Philosophy

Together with society, our customers, and our employees

- Our activities shall lead to the betterment of society
- Our passion for quality shall foster customer trust
- Our employees shall have opportunities to be engaged at all levels

Mission Statement

Maximizing energy conversion efficiency for the benefit of humanity and society.

Brand Logo



Our Promise

Listen closely, look ahead, and create future of value

I am pleased to extend my greetings to readers of the Shindengen Group's CSR Report 2019.

The Shindengen Group is promoting CSR management through the practice of its management philosophy and the pursuit of its above-stated mission. Our brand logo is designed to represent the Group's value systems: effectively utilizing energy, considering the natural environment, and contributing to the growth of business and society.

Right now, corporate roles and responsibilities are undergoing radical changes. Rapid technological advancement in such fields as IoT and AI is prompting the creation of new businesses aimed at meeting needs of future generations, a trend that is pushing many corporations to shift their business models. Furthermore, amid a globalizing economic and social environment, they are having to step up their commitment to addressing ESG issues ranging from environmental preservation to human rights protection.

In FY 2019, the Shindengen Group identified "Advancing product strategy for sustainable growth" as the guiding management policy of its 15th Medium Term Business Plan. In line with this policy, we will enhance the competitiveness of mainstay products while developing growth businesses. Moreover, we will strategically create next-generation products that are a decade ahead. In these ways, we will secure sustainable growth.

In terms of CSR management, we aim to address a variety of social issues existing in Japan and countries abroad, including those specified under the United Nations' Sustainable Development Goals (SDGs), a set of 17 goals to be met by 2030 via the collective efforts of nations around the world. To determine what can be done by the Shindengen Group over the medium to long term, we apply a broader perspective encompassing the entire value chain while giving due consideration to social demands and expectations.

We have thus incorporated the SDGs and social issues into our Medium Term Business Plan, with the aim of better contributing to sound social development and environmental sustainability.

It is my hope that this CSR Report helps facilitate your understanding of the Shindengen Group's CSR management, and I would greatly appreciate your feedback.



Yoshinori Suzuki, President





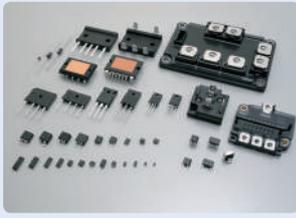
Company Outline

Trade Name: Shindengen Electric Manufacturing Co., Ltd.
 Established: August 16, 1949
 Capital: ¥17,823 million
 Consolidated Sales: ¥94,703 million
 (As of March 31, 2019)

Consolidated Employees: As of March 31, 2019

| | |
|---|-------|
| Independent | 5,215 |
| Consolidated | 1,143 |
| Domestic consolidated subsidiaries | 1,244 |
| Overseas consolidated subsidiaries | 2,828 |

Outline of Business Operations

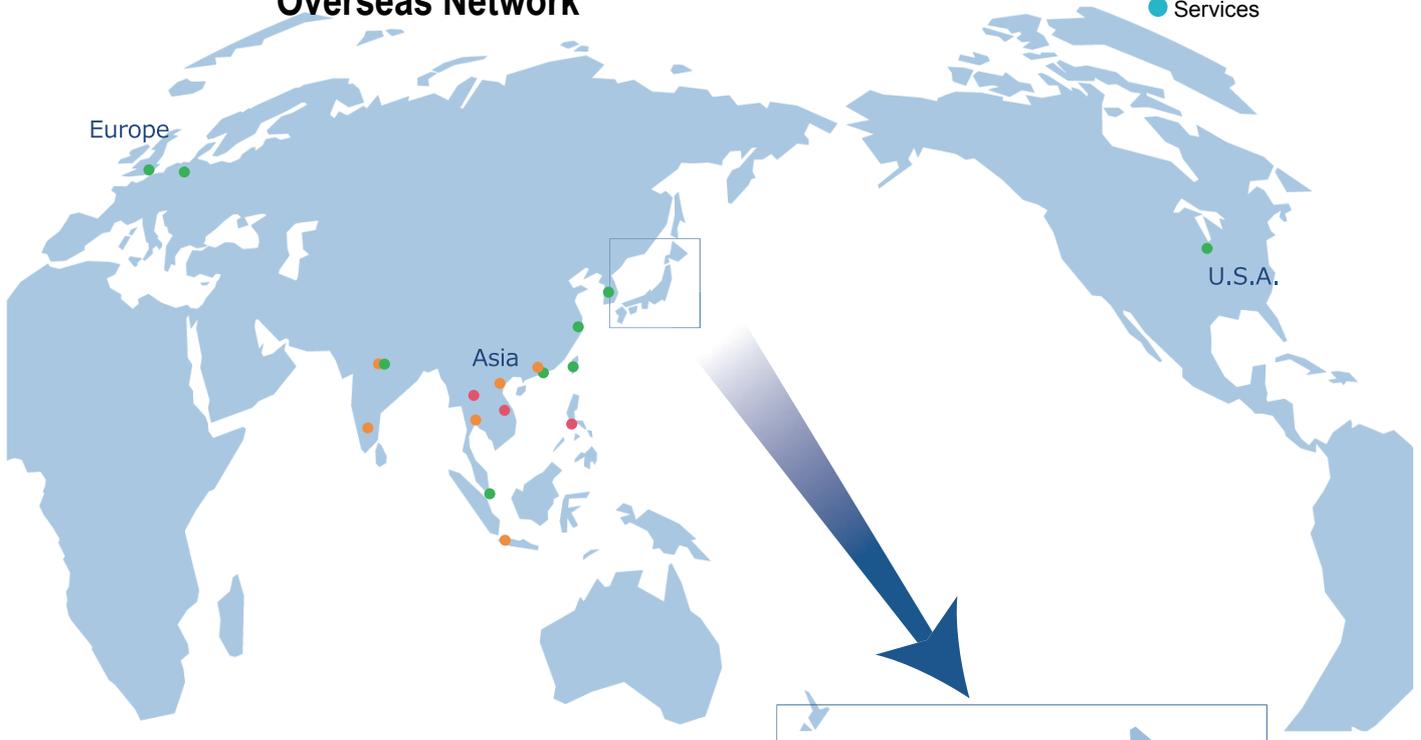
| Division | Products | Markets |
|-------------------------------|---|--|
| Power Device | <ul style="list-style-type: none"> • Bridge diodes • High-speed rectifier diodes • Thyristors • SIDACs • Power MOSFETs • Power ICs • Power modules |  <ul style="list-style-type: none"> • Mobility (four-wheel vehicles) • Industrial machinery market (factories) • Home electronics (air conditioners, lighting, etc.) • Telecommunications equipment • Electric office equipment |
| Car Electronics | <ul style="list-style-type: none"> • Motorcycle products • Electric motorcycle products • Universal engine control units • Four-wheel EV/HEV/PHEV/FCV* products |  <ul style="list-style-type: none"> • Mobility (motorcycles, four-wheel vehicles) • Generators |
| Next Generation Energy | <ul style="list-style-type: none"> • EV/PHEV chargers • Power conditioners for photovoltaic generation • Smart energy management systems |  <ul style="list-style-type: none"> • Next generation energy (photovoltaic generation and energy storage, EV/PHEV chargers) |
| | <ul style="list-style-type: none"> • Rectifiers for communication stations • Rectifiers for mobile device base stations • Inverters for communication stations • Monitoring units |  <ul style="list-style-type: none"> • Information/communication (mobile device base stations, data centers and communication stations) |
| Other | <ul style="list-style-type: none"> • Rotary solenoids • Push pull solenoids • Tubular solenoids • Proportional solenoids |  <p>Automobiles, hydraulic equipment, construction machinery, embroidering machinery, and other FA devices</p> |



Global Network

- Sales
- Manufacturing
- Manufacturing and Sales
- Research and Development
- Services

Overseas Network

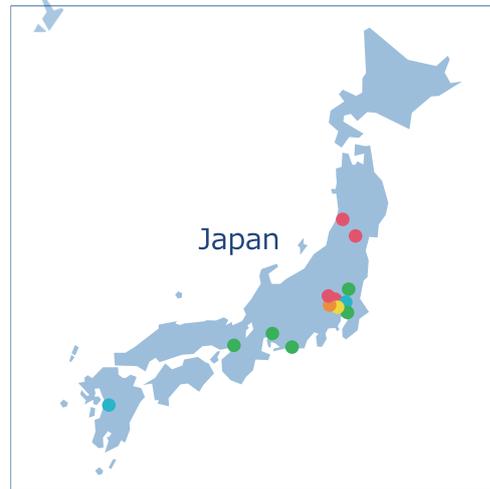


Overseas offices

- Asia
- Seoul Office

Affiliated Companies (Overseas)

- Asia
- Lumphun Shindengen Co., Ltd.
 - Shindengen Philippines Corp.
 - Shindengen India Pvt. Ltd.
 - Head Office
 - Gurugram Office
 - PT. Shindengen Indonesia
 - Shindengen Vietnam Co., Ltd.
 - Guangzhou Shindengen Electronic Co., Ltd.
 - Shindengen (Thailand) Co., Ltd.
 - Shindengen (H.K.) Co., Ltd.
 - Head Office
 - Taiwan Representative Office
 - Shindengen Singapore Pte Ltd.
 - Shindengen (Shanghai) Electronic Co., Ltd.
 - Shindengen Lao Co., Ltd.
 - Napino Auto & Electronics Ltd. Manesar Plant



- Europe
- Shindengen UK Ltd.
 - Head Office
 - German Branch

- U.S.A.
- Shindengen America, Inc.

Japan offices

- Shindengen Electric Manufacturing Co., Ltd.
- Head Office
- Osaka Branch
- Nagoya Branch
- Hamamatsu Office
- Utsunomiya Office
- Hanno Factory

Affiliated Companies (Japan)

- Akita Shindengen Co., Ltd.
- Head Office, Ohura Factory
- Asuka Factory
- Higashine Shindengen Co., Ltd.
- Head Office
- Logistic Center
- Okabe Shindengen Co., Ltd.
- Shindengen Three E Co., Ltd.
- Shindengen Kumamoto Technoresearch Co., Ltd.
- Shindengen Enterprise Co., Ltd.
- Shindengen Mechatronics Co., Ltd.



Business Fields

Power Innovation Moving into Various Areas

Industrial Machinery Market

Factories

Various kinds of Power Devices

Environmental/Energy Market

Photovoltaic Generation Storage

PV Inverters
Power Control Units
Monitoring System
Energy Management Systems

LED Lighting

Various kinds of Power Devices

Mobility Market

Automobiles

DC/DC Converter for EV
Various kinds of Power Devices
Chargers for EV/PHEV
DC/AC Inverters

Motorcycles

REGs/RECTs, CDIs
Idle Reduction ECUs
Blinker Relays

Information/Communications Market

Mobile Phone Base Stations

Rectifiers for Mobile Phone Base Stations
Inverters for Communication Stations

Data Centers, Communication Stations

Rectifiers for Communication Stations, Inverters for Communication Stations
Monitoring Units

Home Appliance Market

Homes

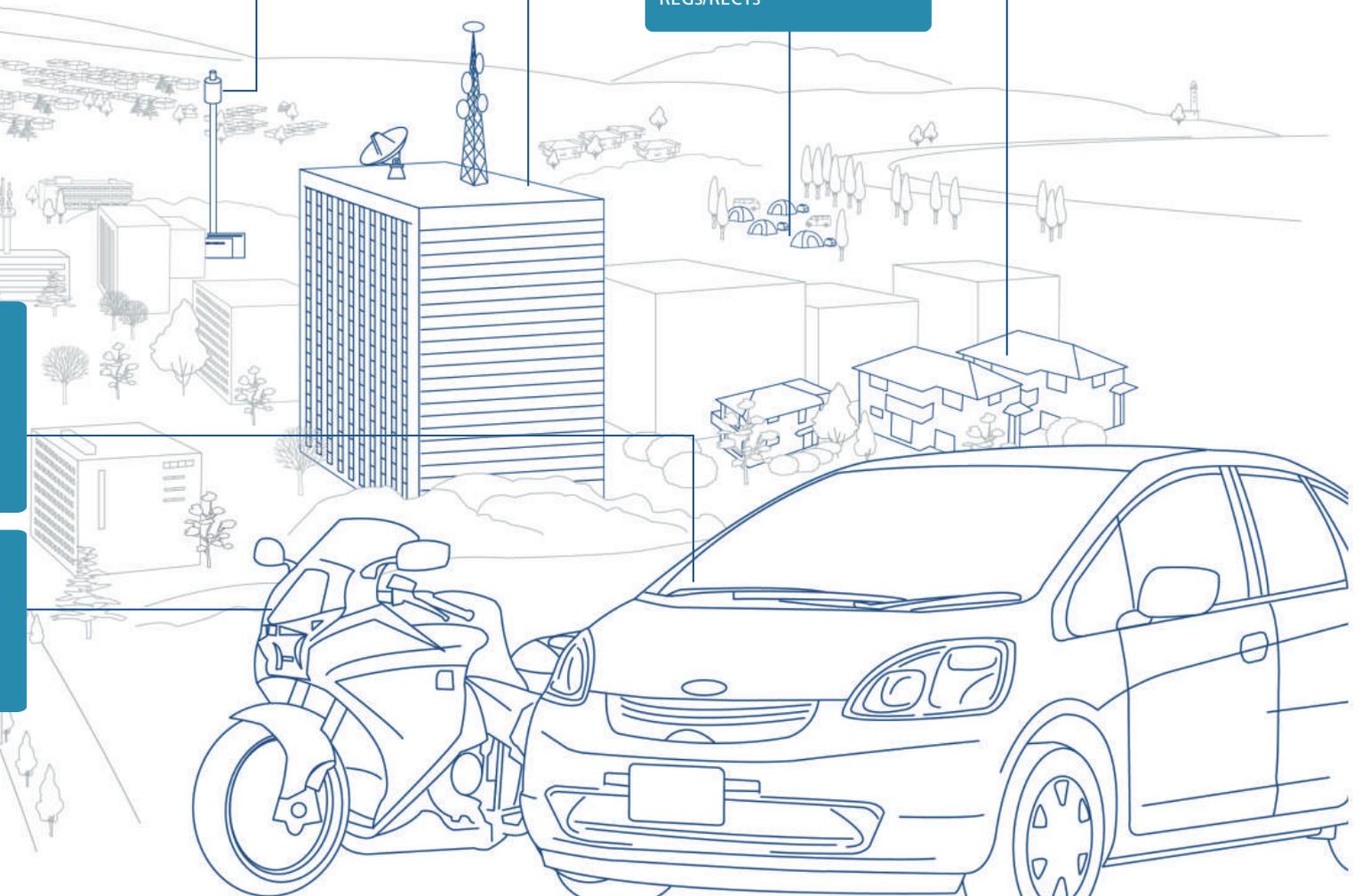
(Home Appliance)

Various kinds of Power Devices

Power Generator Market

Generators

Sine Wave Inverters,
REGs/RECTs



Technology & Development Center



Technology & Development Center

A Message from the Head of Center

The Shindengen Group's corporate mission is "Maximizing energy conversion efficiency for the benefit of humanity and society" and as such, we are committed to transferring our new technology to key business fields to better serve our society.



Head of Technology & Development Center
Officer

Masahiro Sasaki

Promoting Environmentally Friendly Product Development

Creating core technologies ahead of market changes

In the semiconductor device field, Shindengen is promoting the development of new technology in order to lower associated losses, allow operation in higher temperatures, and to integrate the functioning of multiple parts.

In the power electronics field, we are promoting research and development to increase conversion efficiency, reduced related noise, and provide high-density mounting.

We are passionate about working towards meeting these challenges and developing new technologies that cater to the market demands in a timely manner.

A Mid-term Growth Strategy Considering Social Requirements

Creating core technologies pursuing the limits of energy conversion efficiency

- Development of advanced low loss devices as per the requirements of mobility markets
- Development of advanced element technologies for next generation low loss power devices
- Development of advanced bonding technologies for reliable use in high temperature operations
- Development of high efficiency power circuit technologies for application in next generation low loss devices
- Development of ICs for lighting purposes so as to move towards a society with reduced energy consumption

Creating Environmentally Friendly Products Based on the Growth Strategy

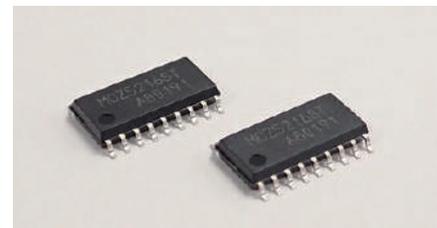
New product featured High-Efficient and Low-Noise We launched a LLC resonant control IC "MCZ5216ST" with High-Efficient and Low-Noise.

- Reduce approximately 25% of electric consumption while Stand-by mode by adopting discharge function using X-Capacitor (*1: During no load condition compared to our conventional model)
- Enable to eliminate Sub-Power Supply by active standby function using our unique asymmetric control technology.
- Enable to create down-sizing Power Supply by operating with High-Frequency (~500kHz)

Primary manufacturers

Domestic – Hanno factory

Primary environmentally friendly products from the Technology & Development Center



Current Resonant Mode controller IC
PKG external form: SOP18



Electronic Device Division

Electronic Device Div. Group

A Message from the Head of Division Group

Our Division tries to remain as one of the top Power Semiconductor manufacturers which contribute to improve the energy efficiency across the world by developing products by using its unique technology.



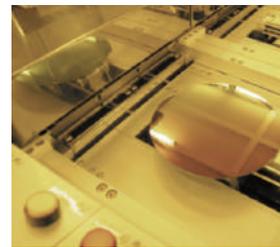
Division Director of
Electronic Device Div.
Group Officer

Tomoaki Nishi

Introduction

Power supplies to bring power semiconductors to life

- Our portfolio of diode-related products, which are used in the automotive industry, is of the finest quality, and as a result, has the largest market share of similar products in the world.
- Our portfolio of Automotive quality power MOSFETs and ICs are highly efficient and possess a power-saving feature.
- Our portfolio of power module products combines the features of a multitude of semiconductor devices, rendering the assembling process simple. This is achieved by providing efficient heat dissipation, downsizing, and high integrability with other modules.



Product Introduction

A Mid-term Growth Strategy Considering Social Requirements

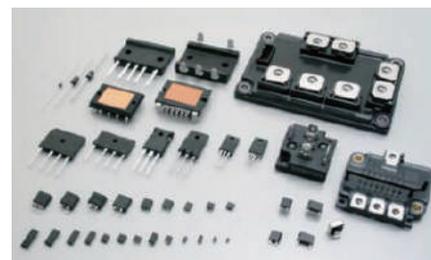
Increasing social environmental awareness has made inverter motor drives and electronic controls more popular in the car electronics and industrial machinery markets. Additionally, there has been a rapid growth in the demand for downsizing and for drive and control parts that are highly efficient. Our divisional group is passionate about contributing to the global society with our new and improved efficient energy conversion process. We have added new features to our already renowned lineup of power semiconductors such as lowering of associated loss, downsizing, and a higher capacity to withstand high pressures and large currents. Additionally, we hope to drive new demand with the creation of our original and unique modularization and mounting technologies.

We are also committed to integrating semiconductor and circuit technologies by increased cooperation with our Car Electronics and Energy Systems Division, thereby promoting the development of advanced devices with features and mounting shapes suitable for use in various sophisticated and highly efficient applications.

Creation of Environmentally Friendly Products Based on a Growth Strategy

- We commit to expanding electrification with consideration of environment in the mobility and industrial machinery markets where sophisticated computerization techniques are being used.
- We commit to promoting the development of eco-friendly devices, such as renewable energy equipment and power storage units, aimed at the fledgling energy market.
- We commit to offering small high-performance energy-saving devices such as lighting and home electrical appliances for domestic use.
- We are also committed to promote development of devices for industrial equipment market, aiming to automation and saving of labor force.

Primary environmentally friendly products from the Electronic Devices Division



Primary manufacturers

Domestic – Akita Shindengen Co., Ltd. Higashine Shindengen Co., Ltd.
Overseas - Lumpun Shindengen Co., Ltd (Thailand). Shindengen Philippines Corp.

Car Electronics Division



Car Electronics Div. Group

A Message from the Head of Division Group

Seeking high conversion efficiency and long-term reliability in the mobility field.

The company employs the latest technology, contributing to environmental preservation and society by providing customers with products of high conversion efficiency and high reliability.



Division Director of Car Electronics Div. Group Senior Officer

Seiji Niizeki

Introduction

Combining core technologies focused on the environmental business for a leap into the future

- A major international share of motorcycle components (e.g. regulators, rectifiers)
- DC/DC converters for high efficiency and high reliability motor vehicle FCVs, PHEVs, and HEVs
- 6.6kW on-board charger with the world's highest power density (company investigation, as of April 1 2014)

Product Introduction



A Mid-term Growth Strategy Considering Social Requirements

Strengthening development of low-loss technology using electronic control, and energy recovery technology, and commercialization of products, as a means to reduce environmental impact. The majority were achieved with electronic control. Future introduction of electronics to the mobility field using the company's semiconductor, circuit, magnetic body, software, and mounting technologies in product commercialization, and focusing on continuous expansion.

Creation of Environmentally Friendly Products Based on a Growth Strategy

Motorcycle electronics

- Regulators using low-loss devices and control technology
- Reducing power consumption System for headlight LEDs
- Development and commercialization of ECUs (Electronic Control Units)

Motor vehicle electronics

- High-efficiency, high reliability, light weight vehicle power systems
- Development and commercialization of ECUs (Electronic Control Units)
- EV quick chargers

Primary environmentally friendly products from the Car Electronics Division



HEV applications DC/DC converters TW-60



Non-isolated bidirectional buck-boost converter TW-58

Primary manufacturers

Domestic - Okabe Shindengen Co. Ltd

Overseas - PT. Shindengen Indonesia, Guangzhou Shindengen Co., Ltd. (China)
Shindengen (Thailand) Co., Ltd. Shindengen Vietnam Co., Ltd.
Shindengen India Private Ltd. Napino Auto & Electronics Ltd. (India)

Energy Systems & Solutions Division



Energy Systems & Solutions Div.

A Message from the Head of Division

We offer a variety of new products including power devices and monitoring units, crafted using years of experience and expertise in designing power conversion technologies, aimed at the efficient conversion and usage of energy.

Given the current need to diversify our sources of energy, we are passionate about making our society more sustainable and are committed to facilitating rapid access to new eco-friendly technologies, and the development and subsequent application of advanced technologies to our existing devices so as to limit their environmental impacts.



General Manager of Energy Systems & Solutions Div. Officer

Yoshiaki Kasahara

Introduction

Rapid Response to New Requirements

- Isolated power conditioners for high conversion-efficiency solar power generation
- High quality and high performance charging stations for Electric Vehicles (EV)
- Smart Energy Management System for power storage systems

Product Introduction



A Mid-term Growth Strategy Considering Social Requirements

We commit to the continuous development of highly efficient energy creation, storage, and saving devices based on our advanced power conversion technologies.

- We are promoting the development of power conversion devices and power conditioner units that utilize renewable energy such as that obtained from solar power. We are committed to making a continued effort to reducing environmental impact from our systems and products.
- We commit to contributing to the expansion of the charging infrastructure required by next-generation vehicles if we are to achieve our goal of living in a low-carbon society.
- We are promoting the development of power conversion devices that alter the charging and discharging cycles of batteries so as to ensure stable electrical supply and energy saving.
- We commit to the development of high-voltage DC power supply devices with highly efficient electrical conversion ratio to contribute to reducing the electrical consumption in data centers and telecommunications buildings.

Creation of Environmentally Friendly Products Based on a Growth Strategy

[Energy Saving]

- Rectifiers for Information/Communications
- Chargers for EV/PHEV

[Energy Creation]

- Power conditioners for the generation of renewable energy including photovoltaic generation
- Monitoring systems for power conditioners

[Energy Storage]

- Smart Energy Management System for power storage systems
- Power conditioners for batteries

The Energy Systems Division considers it a mission to contribute to creation of various energy sources in efficient manner for its safe and secure use. The Energy Systems Division contributes to efficient use of energy through development of the power-conversion-related efficiency technology. As such we further enhance the environmentally friendly products.

Primary environmentally friendly products from the Next Generation Energy Division



Power conditioners



HV-DC



EV/PHEV chargers

Primary manufacturers

Domestic - Shindengen Three E Co., Ltd.



Shindengen Group Guidelines for Action

Staying true to its management philosophy of “together with society, together with our customers, and together with our employees,” Shindengen Electric Manufacturing Co., Ltd. has made it a corporate mission to maximize energy conversion efficiency for the benefit of humanity and society.

Based on our management philosophy and corporate mission, we, all officers and employees* employees of Shindengen Electric Manufacturing Co., Ltd. and Shindengen group companies, act in compliance with the following Guidelines for Action in order to further contribute to society:

*the term “employees” as used in this guideline refers to any persons who are employed by the company, including associate officers, corporate advisors, full-time employees, non- full time employees, contract employees, part-time workers and temporarily transferred employees.

Compliance with legislation and other regulations

1 Compliance with legislation and regulations

We act to honestly comply with relevant legislation and company regulations and rules, etc.

2 Fair competition and transactions

We conduct business transactions through fair, just, and free competition.

Above all, in our daily business activities, we observe the Japanese Antimonopoly Act and Subcontract Act, as well as the U.S. Antitrust Act, EU Competition Act, and antimonopoly laws of other countries, while also strictly complying with the following items of our company group:

- i) We do not exchange the following information with other companies in the same business: information on product prices, production amounts, manufacturing capabilities, selection of customers, and other conditions of competition. Nor do we make arrangements regarding such matters (for example, price fixing, market allocation, bid rigging, and order adjustments).
- ii) We do not participate in meetings of organizations and companies in the same business where we may be requested to exchange such information or make such arrangements. We act in accordance with established company rules, etc. when having contact with our competitors.
- iii) We do not commit acts that may hinder fair competition toward distributors and dealers, including restricting resale prices and abusing privileged position.
- iv) We act honestly toward all our business partners and carry out fair and appropriate transactions.

3 Preventing conflicts of interests

We do not act against the interest of our company to promote our own or third parties' interests.

4 Prohibiting bribery and excessive entertainment and gifts

- i) We comply with the rules of different countries that prohibit giving bribes to government officials of Japan and other countries. In addition, we also comply with the rules of different countries that prohibit bribery between private companies and between individuals.

We do not offer, propose, or promise to give bribes (money, goods, entertainment, gifts, or other interests) not only to government officials of Japan or other countries but also to private citizens for the purpose of gaining or maintaining preferential treatment in business. We do not allow those who act on our behalf, including dealers and consultants, to be involved in such acts.

- ii) We do not provide or receive economic benefits exceeding the range of sound business customs and social conventions, including gifts and meals, when entertaining or being entertained by customers or exchanging gifts with them. Nor do we receive personal economic benefits from them.

5 Preventing confidential information disclosure

We keep confidential information under strict control and never disclose it to other parties.

6 Prohibiting insider trading

We do not conduct insider trading or stock trading that may be suspected of being insider trading.

2 Respect of Human Rights

We always respect human rights in any of our corporate activities and do not condone or tolerate any behavior including sexual harassment, power harassment, discrimination and/or harm to personal dignity.

3 A healthy workplace environment

1 A safe workplace environment

We create a workplace environment that provides safety and job satisfaction to employees.

2 Prohibiting harassment

We do not allow sexual harassment or workplace bullying in any form.

3 Attention to health

We pay attention to healthy lifestyles, including eating healthy meals, getting enough sleep, taking sufficient rest, and living fulfilling lives every day.

4 Our relationship with society

1 Customer satisfaction

We provide products and services that meet customers' needs, bring them satisfaction, and gain their trust.

2 Contribution to society

We proactively contribute to society as members of local communities.

3 Environmental protection

We strive to develop, produce, and sell products that contribute to protecting the global environment.

4 Attitude toward anti-social groups

We stand firm in our resolve to fight against anti-social groups and organizations that threaten public order and safety and have no relationship with such groups.

In the event of a violation of these Guidelines for Action, business executives themselves work to resolve problems, to identify their causes, and to prevent recurrence. We also publicly disclose information promptly and appropriately both inside and outside the company.

Revised on April 1, 2016

Organizational Governance

Shindengen recognizes that for communities to grow sustainably and develop for the future, companies must recognize the role they play in social responsibility and accountability. We are committed to improving the lives of our people and the world we live in, through initiatives targeting important issues including climate change, and social health and welfare.

Management

Shindengen's management policy is "To Grow in Harmony with Society, Customers and Employees". Our Corporate Mission is to "Maximizing Energy Conversion Efficiency for the Benefit of Humanity and Society." We aim to contribute to the realization of a low-carbon society by developing products that focus not only on energy conversion efficiency, but also that consider their environmental impact.

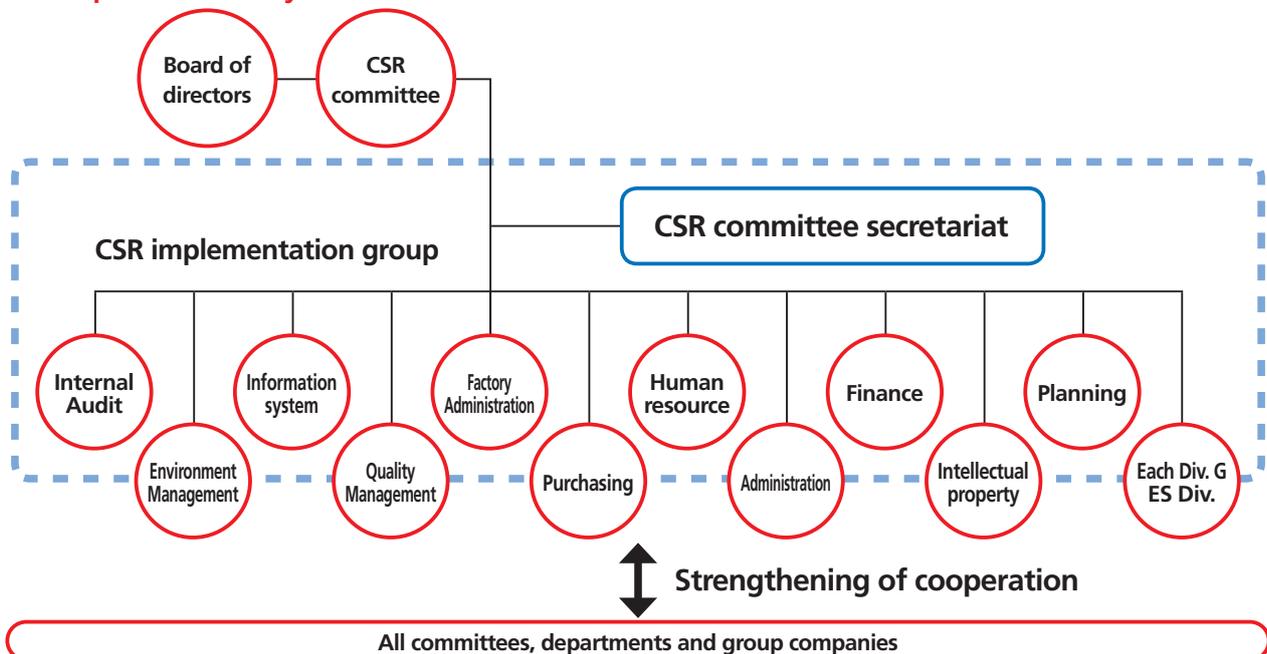


With passion and purpose, we work hand-in-hand to empower our people and the communities in which we operate, and in doing so, strive to generate long-term value for our stakeholders. Shindengen aims to continually improve existing Governance and Management structures, in order to respond swiftly and appropriately to changes in its dynamic business environment.

| Management Philosophy |
|--|
| <p>Together we succeed We pursue company growth that benefits society, our customers and our employees</p> <ul style="list-style-type: none"> • Our activities shall lead to the betterment of society • Our passion for quality shall foster customer's trust • Our employees shall have opportunities for physical and emotional enrichment |
| Corporate Mission |
| Maximizing energy conversion efficiency for the benefit of humanity and society |
| Long-Term Vision for 2021 |
| Accelerating into the advanced power component field and forging a high-gain business model. |
| Numerical Targets |
| Net sales ¥115 billion, Operating income margin 7.6%, ROE 10.0% |

| CSR Management Philosophy |
|--|
| In order for the Shindengen Group to contribute to the advancement of society and prosperity of mankind, we strive to be a "good corporate citizen" on the world stage where employees can be proud to work, that is trusted by our customers and shareholders, respected by society, and in harmony with the earth's environment, by the entire staff energetically building the company. |
| CSR Medium-Term Policy |
| <p>We promoting CSR activity a long with our business partners</p> |

CSR implementation system

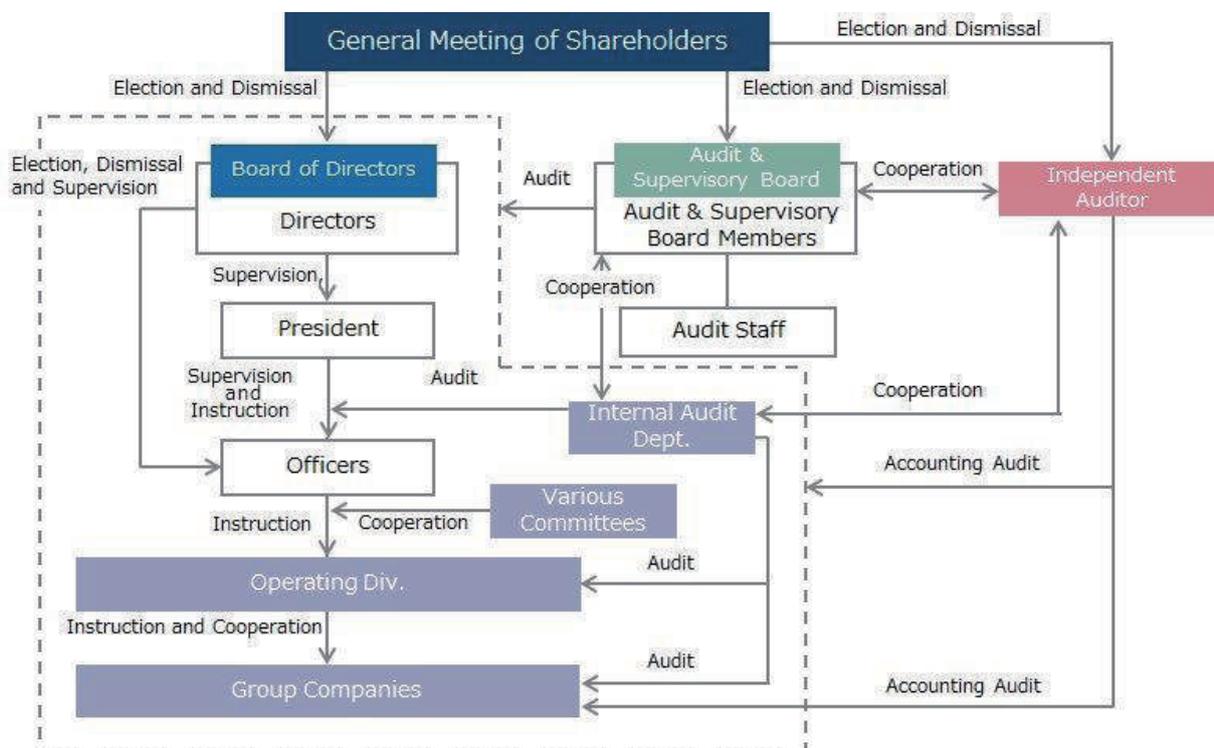




Our Basic Stance

In recent years, corporations are required to arrange its governance effectively including transparency and compliance of the management. Shindengen has a fundamental principal which is engaged with maintain and improve promptly and precisely its management system in order to respond mutual development to the circumstance that is rapidly changing surrounds the management.

In addition, by separating management and execution, we are planning the coexistence of the decision-making acceleration and monitoring functional enhancement, raising the effectiveness of the internal control system through which the board of corporate auditors conducts the independent audit. As a business-management organization, we are functionally managing various conferences such as the board of directors, the management committee, the board of corporate auditors, the technology- and quality- policy meeting, the general managers' meeting, the division directors' meeting, etc., thereby pursuing group management which connected internal organization closely through prompt decision-making and efficient business activities. Regarding information disclosure, we strive to strengthen IR activities in order to enhance the fairness and transparency of management.



Corresponding with the Corporate Governance Code

Effective governance structures ensure honesty and furthers the confidence of our shareholders and other stakeholders. At Shindengen we are continually striving to improve the effectiveness, efficiency and transparency with which we operate. Facilitating appropriate dialogue with all stakeholders (customers, shareholders, investors, suppliers, employees, government, administrative agencies and local communities) is essential.

A Compliance Committee was established in FY2015 to manage compliance risk along with establish a Corporate Governance Code (Details on the compliance are indicated in the Fair Business Practice).



Procurement Policy



Our Basic Stance

In accordance with "Shindengen group guideline for action", the procurement sections of Shindengen group strive to enhance the corporation value, and the mutual development with business partners through purchasing necessary materials and services, etc. from the global market with appropriate quality, cost, and delivery time in order to provide with customers for high-quality products that customers need. In order to obtain materials at competitive cost, Shindengen does not take consideration on supplier's sizes and nationality based on free competition principle. Also, we comply with relevant laws and regulations, and always interact with business partners with faithful manner from an equal, fair, and equitable stance.

In addition, Shindengen complies with relevant laws, ordinances, and social norms (environment, human rights, labor, safety, sanitation, ethics, etc.) in each country/region. And for the matter of related corporate social responsibilities, such as preservation of the local environment, we engage in enhance along with business partners based on the relationship with the mutual understanding and trust.

Shindengen Group Materials Procurement Policy

1 Compliance with legislation and social norms

1 Compliance with legislation and regulations

We observe the applicable laws, regulations, and social norms (environment, human rights, labor, safety, sanitation, ethics, etc.) of each country and region.

2 Fair and equitable business activities

Regardless of business size or nationality, we ensure our procurement operations are handled in a fair and equitable manner with all customers. Quality, cost, delivery time, and reliability of supply are all considered.

2 Green procurement

As part of our global environmental conservation activities, we strive for green procurement. This involves the procurement of materials with smaller environmental impacts taking into consideration energy conservation, materials usage, chemical management, and the impact on biological diversity.

3 Establishment of partnerships

We strive to establish mutually beneficial relationship with our customers based on long-term trust and offering superior products and services.

4 Quality, delivery period, and stable supply

1 Securing high quality

To assure and continually improve the quality of our products, we request suppliers establish quality management systems and undergo third-party quality certification in conformity with the ISO9000 (family of) standards.

2 Securing delivery period and establishing a stable supply system

To best meet our customers' demands of stable supply under changing conditions, we request our suppliers to secure the delivery period and establish stable material and/or service supply systems.

3 Continuing supply in instances of disasters or emergencies

In instances of disasters or emergencies such as earthquakes and floods, we request our suppliers to share supply chain information that may impact the procurement process for our customers. Additionally, we encourage our suppliers even under normal circumstances to engage in their own risk management activities, to minimize any disruption during times of disasters or emergencies.



Procurement policy explanation meeting

5 Support for local procurement
We support local procurement and local production.

6 Requests of our customers

1 Compliance with laws and social norms

We request our customers to fulfill their corporate social responsibility and to observe the applicable laws, regulations, and social norms (environment, human rights, labor, safety, sanitation, ethics, etc.) of each country and region.

2 Sound business activities

We request our customers to promote sound and fair business activities to build long-term mutual cooperation and trust.

3 VA/VE activities

We request our customers to provide suggestions and propose new materials or cost improvement activities through their VA/VE activities.

4 Shortening the procurement period

We request our customers to be capable of adapting quickly and flexibly to changes in the market.



SDGs and Shindengen's Corporate Activities

In September 2015, the United Nations adopted 2030 Agenda of the "Sustainable Development Goals (SDGs)". At Shindengen we share the necessity of solving 17 goals through our corporate activities. In accordance with ISO 26000's 'Seven Core Areas' Shindengen have aligned our activities to achieve the SDGs. These are summarized below.

17 Sustainable Development Goals



SDGs aligned to Shindengen Group's CSR activities

Organizational Governance (12-15P)



Human rights (16-18P)



Labor Practices (19-22P)



Environment (23-29P)



Fair Business Practices (30-33P)



Consumer issues (34P)



Community participation and community development (36-39P)



At Shindengen Group we respect international human rights in the countries that we, and our partners operate in. Sustainable globalization requires respect for social issues, and the rights of our own employees. We are actively committed to promoting human rights and being an employer of choice.



Initiative for respecting Human Rights on Labor



Establishment and revision of related Policies

Establishment of 'Shindengen Group Human Rights Policy' and revision of 'Shindengen Group Guideline for Action'

In FY2018, we have established 'Shindengen Group Human Rights Policy' as the base of all other policies and documents (ex. Shindengen Group Action Guidelines) related to the Group's efforts to respect human rights across our global operations.

Shindengen Group Human Rights Policy

Shindengen Group Human Rights Policy

Shindengen Electric Manufacturing Co. Ltd. ('Shindengen') holds 'Management Philosophy', "Together with society, our customers, and our employees, Shindengen pursue company growth that benefits society, our customers and employees", and attaches much value to relationships with society and human rights of employees. Shindengen Group ('the Group' or 'we') respects the international norms with regards to the human rights, labor challenges and employee rights brought out by the globalization. We are also actively committed to promoting human right awareness.

1 Position of this policy

This policy shall be the base of all other policies and documents (ex. Shindengen Group Action Guidelines) related to the Group's efforts to respect human rights across our global operations, and applies to all the executives and employees* of the Group.

The Group respects international norms on human rights, the International Bill of Human Rights (consisting of the Universal Declaration of Human Rights and the International Covenants on Human Rights), the International Labour Organization's "Declaration on Fundamental Principles and Rights at Work", the United Nations "Global Compact", the United Nations "Guiding Principles on Business and Human Rights", and has developed this policy based on these norms.

*employees; any persons who are employed by the company

2 Respect human rights

The Group complies with respective laws and regulations of the countries and regions in which it operates. If a law or regulation of a country or region conflicts with an internationally recognized standard for human rights, we pursue ways to honor the internationally recognized standard.

The Group prohibits any form of discrimination based on race, ethnicity, nationality, social status, lineage, sex, disability, health conditions, ideology, faith, sexual orientation, gender identity, occupation or occupational status, and harassment. We are committed to responsible labor practices including the provision of a safe and healthy environment in the workplace as well as ensuring adequate working hours and minimum wage. We also commit ourselves to respecting freedom of association.

The Group opposes any form of slavery or forced labor, including human trafficking, and child labor.

3 Efforts to respect human rights

The Group recognizes that our business activities may have direct or indirect human rights impacts at every stage in the value chain, from R&D and procurement of raw materials to consumption/use of our products and services.

Based on the United Nations Guiding Principles on Business and Human Rights, the Group shall undertake human rights due diligence measures, such as specifying and assessing the impact of its business activities on human rights, and studying ways of proactively preventing or mitigating any negative impact of those activities.

We will take appropriate measures in the event that the Group becomes aware of violation of human rights and demand that suppliers redress any violations of human rights.

We expect that all of our business partners adhere to this policy. We will work to make our suppliers aware of this Policy, and we demand their compliance.

The Group conducts education and training to ensure this policy is understood across all business activities of the Group and implemented in the respective activities.

We will continue to engage with our relevant stakeholders concerning the human rights issues associated with our business and seek to update our practices to respect human rights.

Shindengen reports on the implementation status of our human rights initiatives in accordance with this policy in our website or CSR report.

Established: April 22nd, 2019

Initiative for preventing Slave Labor and Human Trafficking

Shindengen Group has issued a statement in September 2018

to prevent slave labor and human trafficking pursuant to the British Modern Slavery Act 2015, Article 54(1)

Shindengen's statement about the British Modern Slavery Act (extract).

- Shindengen Group respects the international norms with regards to the human rights, labor challenges and employee rights brought out by the globalization. We are also actively committed to promoting human right awareness in the workplace.
- Shindengen Group holds policy of 'Compliance with legislation and social norms' as one of the basic policies of 'Group Materials Procurement Policy'. In materials procurement, we comply with legislation and social norms (e.g. environment, human rights, labor, safety, health hygiene, ethic, etc.) of countries and regions, and make considerations on respects for human rights for our supply chains.

Due Diligence

We consider that the greatest risk of slavery or human trafficking would have been in our supply chain where operations and managerial oversight are out of Shindengen Group's direct

control. In FY2018, we have studied the method of due diligence and selected scopes in order to evaluate risks in FY2019. By executing Due Diligence of the Group, suppliers and business partners, we will evaluate, avoid, mitigate and monitor the risks.



Human Rights for the Supply Chain



Shindengen Group holds policy of 'Compliance with legislation and social norms' as one of the basic policies of 'Group Materials Procurement Policy'. In materials procurement, we comply with legislation and social norms (e.g. environment, human rights, labor, safety, health hygiene, ethic, etc.) of countries and

regions, and make considerations on respects for human rights for our supply chains. In accordance with 'Shindengen Group Human Rights Policy', the Group has set 'Supply Chain CSR Deployment Guidebook', and works to make our suppliers aware of this Policy, and we demand their compliance.

Conflict Minerals – Our Stance

To ensure that Shindengen Group's performance fulfills the social responsibility standards for supply chains, we request our

suppliers to expand their awareness to conflict minerals and participate in the surveys we implement as part of our effort to honor human rights.

Shindengen Group's initiative for conflict minerals

Conflict minerals are gold, tantalum, tin and tungsten mined in the Democratic Republic of the Congo and adjoining countries that are used to fund armed groups and rebel organizations which are involved in human rights problems and the destruction of the environment.

In the final rule of Article 1502 of the "Dodd-Frank Wall Street Reform and Consumer Protection Act" (Dodd-Frank act), which was passed and announced on 22 August 2012 by the U.S. Securities and Exchange Commission, it states that all public companies in the US must submit a report to the Securities and Exchange Commission certifying whether or not "conflict minerals" are contained in their products.

As Shindengen Electric Manufacturing is not a company that has to submit a report to the US Securities and Exchange Commission, there is no obligation to submit any such report about the usage of conflict minerals.

However, the Shindengen Group is taking a humanitarian stance, and actively making it clear as to whether or not conflict minerals are included in our products and working towards the elimination of conflict minerals.



Human Rights for the Employees



Labor Union Relations

Shindengen and the Group (domestic) actively ensure there is a forum available for discussion between Labor Unions, Shindengen employees and Management. We strive to provide our employees with a positive, safe workplace, through regularly holding meetings with labor management councils, in efforts to achieve mutually beneficial results. Shindengen has signed a collective agreement with the Labor Union to guarantee the rights of all members.

Employee Consultation

The Shindengen Group (domestic) has established a consultation window where employees and their families can receive specialist counselor advice for daily anxiety, stress and other troubles. Mental health education workshops are also provided to all employees. Since FY2016, annual stress checks (under the Occupational Health and Safety Act) have been performed and reported to the Labor Standards Inspection Office to identify, manage and ultimately reduce the risk of mental health problems of our employees.

Zero Tolerance for Sexual and Power Harassment

The Shindengen Group has a zero-tolerance policy towards sexual harassment and/or power harassment. Group Action Guidelines are in place to effectively manage any instances of such harassment.

Human Rights Awareness Initiatives

In an effort to address the serious poverty and labor problems in the world, Shindengen Group engages in raising awareness about social issues and increasing respect for human rights through CSR training courses and similar initiatives. In addition to promoting CSR activity-related concepts such as employment practices, taxation, and community service etc., enhancing employees' appreciation of international standards (ILO core labor standards, etc.) and consideration for minorities, including LGBT individuals, is part of our commitment. Employees are advised of points regarding human rights as indicated in the UN's SDGs, and we strive to continuously share details about human rights issues using information dissemination tools, such as our intranet and company newsletters.



CSR education

At Shindengen Group, we recognize that our employees are at the core of what we do. Our Group Action Guidelines and internal standards are built around respect for international human rights and labor condition laws and regulations. Ensuring “respect for human rights,” “safe working conditions” and “awareness of health” in a workplace where employees are supported at all stages of their career, is of the utmost importance to us. Establishing a culture of caring focused on our employees’ wellbeing is especially crucial in light of increasing globalization coupled with the declining birthrate and aging population.

Human Resources Development

Career Support

Education and Training

At Shindengen, we support our employees with the proper education and training at every career stage. New-employees, third-year employee, qualification, and specifically tailored (financial, marketing) training is always available, we support career advancement for all.

The Group’s domestic companies have also developed self-assessment application systems, and implemented feedback interviews for all employees applying for promotions. In addition, we introduced an expert career system that reflects the value we place on diversity. By doing so, we aim to foster a culture that promotes learning and supports career development among our employees.

Nurturing Global Human Resources

Preparing our employees for the increasingly globalized environment in which we operate, is crucial to the Group’s future success. English training and the TOEIC incentive system are provided to employees to improve English proficiency. Since FY 2015, we have dispatched young salespeople to our group companies in English-speaking regions for a few months to a year, starting our overseas training for employees to gain on-site, hands-on experiences. In addition, since FY 2017, we have provided overseas training for new recruits assigned to the sales department.

For those assigned to work abroad, external teachers with overseas experience are invited to provide training on climate, economics, living standards (safety, environment, etc.) and culture. For language training, educational support programs are available either in Japan or overseas.



English education



Providing Training to Human Resources to Support Expansion of Global Operations

To succeed in a globalized environment and to meet the increasing expectations of society, Shindengen has expanded its global operations, including product design, production, sales and others, mainly into Asian countries. We are developing not only employees from Japan, but also a wide range of employees, taking various approaches, including education for local employees and training at overseas factories. We are striving to establish a profitable business structure supported by talented human resources and are always on the alert for opportunities for expansion into new markets (mobility, new energy and health-care markets specifically).

Promotion of Diversity

Assist in Balancing work, childcare, and nursing care

Shindengen and some Shindengen Group companies in Japan offer various types of leave, including for hospital, maternity and pregnancy miscarriage, as well as time for child care and health management, which includes the reduction of working hours, flexible commuting times and extension of break times. The continual expansion of leave programs for childcare and nursing are under way. We also hosted a seminar on nursing care in June 2018 to help employees address anxieties about nursing care issues arising from the progressive aging of society. Some 51 employees attended talks by external lecturers who gave easy-to-understand presentations on how to utilize nursing care insurance systems and nursing care services and provided meaningful insights into these and other relevant topics.



A nursing care seminar

Shindengen's Hanno factory, Shindengen Three E and Okabe Shindengen support Saitama Prefecture's "Saitama Womanomics Project" and offer a truly equal employment environment for female employees. As a result of their efforts to provide a better working environment for women and childcare programs they received the gold certificate-"Company with a Diversified Working Environment" from the local government.

Annual Statistics for Paid Holiday

| | Fiscal Year 2016 | Fiscal Year 2017 | Fiscal Year 2018 |
|----------------------------------|------------------|------------------|------------------|
| Rate of taking paid Holidays (%) | 67.2 | 58 | 63.8 |

Annual Statistics for Maternity and Childcare Leave

| | Fiscal Year 2016 | Fiscal Year 2017 | Fiscal Year 2018 |
|--|------------------|------------------|------------------|
| Number of people obtaining maternity leave | 5 | 2 | 3 |
| Number of people obtaining childcare leave | 5 | 4 | 7 |
| (Within) Number of men obtaining childcare leave | 0 | 0 | 3 |
| Reinstatement rate following childcare leave (%) | 100 | 100 | 100 |

Annual Statistics for nursing leave

| | Fiscal Year 2016 | Fiscal Year 2017 | Fiscal Year 2018 |
|--|------------------|------------------|------------------|
| Number of people obtaining nursing leave | 1 | 1 | 0 |



Improvement of work-environments

Shindengen provides employees with the opportunity to take long-term career leave depending on their length of employment with the aim of refreshing their minds and bodies and raising their motivation to work. In addition, to ensure that each employee is able to work in a flexible manner that takes into consideration their lifestyle and life-stage, we are working on enhancing a comfortable environment by various means, such as setting up a no-overtime workday, setting overtime work limits and promoting the acquisition of paid holidays.

Encouragement and reward system for raising employees' incentives

Shindengen established a prize-payment system for inventions, suggestions and the acquisition of public certifications as well as the TOEIC incentive system in order to promote the better performance of employees in R&D activities, various workplaces and duties. In FY 2018, there were 46 prizes awarded for those who acquired public qualifications.

Initiative for the "Act on the Promotion of Female Participation and Career Advancement in the Workplace".

On March 31st 2016, Shindengen notified the Ministry of Health, Labor and Welfare, of its action plan regarding the Act on Women's Promotion. Since the entire female employee ratio is low at Shindengen, there are relatively fewer departments and/or positions where female employees can be found. Shindengen is focused on workforce gender diversity and providing women with opportunities to lead. Gender equality is fundamental to our ability to make progress and for our business to more broadly move beyond the need for target setting and into an environment where true gender equality is achieved. Shindengen Group companies are also preparing "Research and analysis of female employees' status and issues in the workplace," "Development and notification of action plans" and "Information disclosure" initiatives.

Goal of its current initiative for the Act.

- Increasing the hiring ratio of female graduates to 30%;
- Providing equal opportunity to female employees in a wide range of departments and occupations; and
- Further promotion of work-life balance programs.

Diversity Seminars

In March 2017, Shindengen held a diversity seminar that approximately 100 employees attended. At this seminar, external diversity experts spoke on topics that included “Subconscious gender bias” and the “Gender communication gap between management and female employees.” Shindengen is pursuing the “promotion of female success” as an important issue, and we will raise the ratio of women among the new graduates, improving the proportion of female employees throughout the company, engaging female employees even more, and encouraging them to play an active part in the company’s operation.



Diversity Seminar

Equal Employment: Disabilities and Ageing Employees

Shindengen Group is committed to being an equal opportunity employer. We strive to provide opportunities to people with disabilities as well as to people approaching retirement age. An example of this, is the “second career system,” a program committed to re-hiring those who retire at 60 years of age and extending their career up to 65.

Support of Success of Foreign Employees

At Shindengen, we realize that in an increasingly globalized business world, it is essential to harness the strengths offered by individuals from a variety of backgrounds and cultures. We respect different values, cultures and experiences (regardless of nationalities, races and genders) and provide opportunities for employees to exhibit their characteristics. We believe that this will create values and businesses that meet social changes and mentally enrich employees. In addition, the Shindengen Group is promoting production innovation activities and quality improvement activities. In overseas production-plants, local employees are engaged in those activities. Representatives of the group companies gather and present their improvement cases.

Annual Statistics Number of Foreign Workers

| | Fiscal Year 2016 | Fiscal Year 2017 | Fiscal Year 2018 |
|---|------------------|------------------|------------------|
| Number of foreign workers | 23 | 16 | 14 |
| Number of foreign workers at management level | 6 | 6 | 6 |
| (Within) Number of foreign workers at or above director level | 0 | 0 | 0 |
| Consolidated number of foreign workers | 2,453 | 2,607 | 2,828 |



Health and safety

Health and safety management

Structure of Promoting Health and Safety

Shindengen Group is committed to promoting health and safety throughout the entire Group. Every month, Shindengen Three E holds safety and health committee meetings to create a better workplace in which everyone can operate safely, stay healthy and work with confidence. On September 26, 2018, Shindengen Three E also hosted a first-aid training session with the cooperation of the Hanno Hidaka Fire Department, and a total of nine employees took part in the practice of resuscitation methods, such as those using an automated external defibrillator (AED).



A first-aid training session (Shindengen Three E)

Traffic Safety Activity

Shindengen has established the 'Traffic Leadership Committee' to manage the prevention of traffic accidents during everyday operations, whilst commuting and whilst our employees are on business trips, incorporating local opinions.



Traffic Safety Management (Shindengen, Shindengen Indonesia)

Akita Shindengen received a "silver prize" under a joint traffic safety commendation program sponsored by Akita Prefectural Police and Japan Safe Driving Center for the second consecutive year, thanks to its robust track record in minimizing the number of traffic accidents and offences involving employees.



Silver Prize Was Awarded for the Excellent Safety Driving Business Site (Akita Shindengen)

Activities on Disaster Prevention and Response

The Great East Japan Earthquake (2011) and floods in Thailand are recent reminders of the importance of having a disaster-response plan in place. Shindengen Group's Business Continuity Plan (BCP) ensures risks are managed appropriately at times of large-scale disaster. The Business Continuity Management (BCM) Committee has strengthened its disaster-response and business-continuity measures to protect employees and the business.

Overseas contacts, including Shindengen Vietnam, periodically, monthly or yearly, hold disaster prevention drills tailored to the characteristics of their country.

Every May, Okabe Shindengen conducts annual drills in which an in-house fire brigade practices the use of outdoor fire hydrants and water cannons as well as the reporting of fire.

Okabe Shindengen also holds annual comprehensive drills in October to ensure that every employee can practice what they are expected to do in emergencies.



Examples of fire drills undertaken by Shindengen Group (Shindengen Vietnam and Okabe Shindengen)



Various Programs on Health Management

Activities on Promotion of Health Management

At Shindengen, as part of promoting work-life balance, we provide activities for employees to help their minds and bodies healthy.

On November 17, 2018, a team of Shindengen employees participated in a hiking event held in Chichibu under the auspices of the Saitama Prefectural Branch of the National Federation of Health Insurance Societies.

The event was blessed by clear weather, with a total of 39 employees setting off from Nogami Station on the Chichibu Main Line. After stopping by at a tangerine orchard on a mountain slope in Fuuppu to harvest fresh tangerines, they successfully completed a hiking trail and reached Hagure Station on the same train line.



A hiking event held in Chichibu (Shindengen)



Since 1992, Shindengen has been working on environmental issues as an important management issue. For the implementation, we aim to develop environmentally conscious products that provide greater benefit to society, with a lower environmental impact. Additionally, the Paris Agreement (21st Conference of Parties to the United Nations Framework Convention on Climate Change) and the United Nations' Sustainable Development Goals provide further guidance when consciously managing our environmental footprint and climate change.

Shindengen Group's Environmental Policy

In order to respond to the revision associated with the ISO 14001: 2015, we revised our (Shindengen Group's) environmental policy. We will make continuous improvements to realize sustainable development goals, firmly taking into consideration changes in circumstances surrounding the Group, and our expectations and needs. We will respond appropriately to them, taking into account not only our impact on the environment, but also the environment itself.

Environmental Policy

Our management philosophy and mission statement is "Together with society, our customers, and our employees, we will maximize energy conversion efficiency for the benefit of humanity and society". In doing so, we promise to "Listen closely, look ahead, and create a future of value".

Shindengen Group employees are committed in their pursuit to develop sustainable electronics across all stages of production from development, to design, and to manufacturing. Products include semiconductors, power supply units, electrical components and solenoids.

- 1 We are committed to complying with the applicable requirements including laws, regulations, and contracts.
- 2 We will evaluate the impacts our business activities and products have on the environment, and we strive for continual improvement.
- 3 We will regularly update our environment management systems to improve environmental performance.

Environmental policies are applied to ISO14001 certified companies in Shindengen Group (Japan). Other domestic and international companies, engage in environmental activities in accordance with the environmental policies of the Group.

Environmental management

Environmental Education

At Shindengen, we are committed to increasing environmental awareness amongst our employees. In FY2019, all new hires attended training to learn about Shindengen's environmental activities.

Furthermore, we are systematically providing employee education on environmental laws and regulations, believing that the awareness of each employee significantly affects the success of our compliance with these laws.

In FY 2018, Shindengen stepped up its efforts to maintain compliance with the Poisonous and Deleterious Substances Control Act, making training on these substances mandatory for employees and managers of business units charged with, respectively, handling and storing chemicals. Alongside frontline operators handling such substances, the individuals involved have undergone training on what they need to know to maintain compliance with said act and risks arising from non-compliance.

Such training is aimed not only at increasing general environmental awareness, but also on developing a workplace culture that recognizes what it means to be an environmentally conscious corporate citizen.

Moreover, we updated our environmental management systems to secure conformity with the latest version of ISO14001, which was released in September 2015. In July 2018, Shindengen Group companies in Japan successfully completed the transition to environmental management systems that conform with the revised standard, thanks to employees who attended study sessions to gain insights from external specialists and secretariat teams that engaged in intensive discussion. With the revised environmental management systems placing emphasis on "understanding the organization and its context" as well as "needs and expectations of interested parties," Shindengen Group companies are currently striving to clarify environmental issues relevant to them and achieve continuous improvements.

At Shindengen, we set environmental goals based on our environmental policies and have implemented initiatives that both reduce our environmental footprint and create business opportunities for the future.

Environmental Objectives and Targets

Environmental Objectives and Targets with Key Results (FY 2018)

| Objective | Target | Result |
|--|--|---|
| Greater Chemical Substance Management <ul style="list-style-type: none"> Contribute to environmental protection activities through the proper management of chemical substance information | <ul style="list-style-type: none"> Monitor usage of products containing mercury and take action to reduce risks associated with frequently used chemical substances | <ul style="list-style-type: none"> identified all equipment and facilities regulated under the Act on Preventing Environmental Pollution of Mercury via in-house surveys of products containing mercury The Chemical Substance Management Task Force took on responsibility for surveys and identification as these activities require specialist expertise |
| Greater Energy Conservation <ul style="list-style-type: none"> Contribute to the prevention of global warming by utilizing (as appropriate) counter measures, including renewable energy | <ul style="list-style-type: none"> Improve carbon dioxide emissions per unit by an average of 1% (of base year FY2012) by 2030. (5.85% improvement achieved FY2018) Address fluorocarbons*1 and substitute CFCs*2 activities and engage in positive action with regard to revisions of laws and regulations <p>*1 HCFC, CFC *2 HFC</p> | <ul style="list-style-type: none"> At the FY 2018 year-end, carbon dioxide emissions per unit had improved 28.554% year on year, achieving the target Completed assessments of risks associated with fluorocarbon and substitute CFC regulations (based on the Kigali Revision of the Montreal Protocol), confirming the absence of fluorocarbon-containing equipment that could immediately impact our business operations |
| Promotion of Zero Emissions <ul style="list-style-type: none"> Reduce waste and contribute to environmental conservation | <ul style="list-style-type: none"> Maintain landfill waste rate below 0.2% of the total waste of the Group Review and revitalize the supervisory system for waste contractors | <ul style="list-style-type: none"> Landfill waste rate was 0.005%, achieving the target Of 28 contractors scheduled for audits in FY 2018, 26 have undergone audits, while 2 required the postponement of audits due to their circumstances; all contractors that underwent audits were deemed sufficient in light of our selection criteria Overhauled and documented procedures for contractor audits to establish unified rules for all Group companies |

Environmental Objectives and Targets (FY 2019)

| Objective | Target |
|--|--|
| Greater Chemical Substances Management <ul style="list-style-type: none"> Contribute to environmental protection activities through proper management of chemical substance information | <ul style="list-style-type: none"> Clarify the policy on the elimination of equipment regulated under the Act on Preventing Environmental Pollution of Mercury |
| Greater Energy Conservation <ul style="list-style-type: none"> Contribute to the prevention of global warming and the solution of climate change issues through efficient energy use and emission control activities | <ul style="list-style-type: none"> With FY2012 as the base year, reduce carbon dioxide emissions per unit with an annual average improvement of 1% throughout the period leading up to 2030 (6.79% improvement achieved FY2019) |
| Promotion of proper waste management <ul style="list-style-type: none"> Strengthen the system for reducing risk from waste | <ul style="list-style-type: none"> Continue to implement audits of waste contractors and evaluate their effectiveness |

Environmental internal audits are conducted at least once a year across the Shindengen Group domestic companies. The environmental ISO secretariat focuses on ensuring that environmental policies, manuals and standards are applied consistently across the Group. Responsibilities include circulating the Plan-Do-Check-Act (PDCA), working on continuous improvement, maintaining compliance with laws and regulations, managing pollution prevention

agreements and engaging appropriately in any industry agreements.

In addition, from December 11 through 14, 2018, these Group companies underwent examination aimed at renewing their certification under the 2015 version of ISO14001 standard, and their environmental management systems were deemed effective, sustainable and comprehensively functioning.



Reducing our Environmental Footprint



The Shindengen Group is committed to reducing its environment footprint. Managing activities that contribute to global warming, proper use and disposal of chemicals, safe waste disposal and water-use reduction, as well as protecting the biodiversity of the reducing our environmental footprint. The following introduces our FY2018 main activities, including practical casestudies.

Reduction of carbon dioxide emission volume

The Shindengen Group is striving to reduce its carbon dioxide emissions in ways that are optimized to each Group company's circumstances.

As part of initiatives to update air conditioning facilities, Akita Shindengen introduced turbo electric freezers. Replacing conventional absorption freezers fed with heavy oil, this move successfully reduced the freezers' energy consumption equivalent to 83kl of heavy oil, helping to decrease total annual carbon dioxide emissions from facilities of this kind by 225 tons. Shindengen Three E revised its procedures for aging tests (continuous current tests) being conducted as part of final inspections of communication equipment power supplies used in communication bases. Conventional operational procedures entail atmospheric heat emissions from resistors due to an energizing load totaling 240kW per two hours; revised procedures for high-voltage power supplies, however, mandate that these products be connected with 100kW power conditioners instead of resistors. This revision made it possible to take advantage of the regenerative process that utilizes this heat as a source of energy while helping reduce energy consumption. The revised procedures also help realize more efficient air conditioning in summer by eliminating the use of resistors, which had otherwise been emitting heat, raising the room temperature and negatively affecting the efficiency of air conditioning systems. Consequently, Shindengen Three E succeeded in reducing annual energy consumption by 23,370kWh via the use of power conditioners in the aforementioned procedures and resulting improvement in air conditioning efficiency in summer, with its annual carbon dioxide emission volume decreasing by 10.8 tons.



A power conditioner being connected with a power supply to employ energy regeneration

Contributions to a low-carbon society

As part of its initiatives to alleviate and adapt to the impact of climate change, the Shindengen Group is playing its part in across-the-board efforts to promote de-carbonization as suggested by the Paris Agreement, to this end working in tandem with regional societies to contribute to the creation of sustainable society.

As we did in FY 2017, we signed up to the "Citizens of Yamagata CO₂ Reduction Value Project" as a candidate for purchaser of CO₂ credit and were successfully chosen as one of four designated purchasers.

On February 5, 2019, a signing ceremony for the credit purchase contract was held at the Yamagata Prefectural Office, with Governor Mieko Yoshimura and the four purchasers confirming that they will collaborate to promote global warming countermeasures and that proceeds from the J-Credit* scheme will be utilized to assist environmental preservation activities under the auspices of Yamagata Prefecture.

In addition, Shindengen purchased credit worth 50t-CO₂ and intends to effectively utilize it to offset carbon dioxide emissions associated with its operations.

Looking ahead, Shindengen will continue to deliver eco-friendly products while proactively striving to reduce greenhouse gas emissions, with the aim of helping resolve issues specified by United Nations Sustainable Development Goals, a set of universal targets to be pursued via international collaboration.

*J-Credit Scheme: A scheme in which the Japanese government certifies the volume of carbon dioxide and other greenhouse gas emissions reduced or absorbed by a business operator via the introduction of energy-saving equipment, forest management and other initiatives. This certification can be transferred as a credit, and the purchaser is eligible to utilize the credit to enhance its environmental performance or offset its greenhouse gas emissions.



Signing ceremony at Yamagata Prefectural Office (Right: Governor Yoshimura)

Initiatives to eliminate ozone depleting substances

Shindengen Philippines is replacing in-house equipment that uses HCFC coolant (R22) with alternatives that use HFC coolants (R407, R410, R314, etc.), which have no ozone depleting effects. This move began in 2012 and the company is systematically replacing all equipment that uses HCFC coolant, with completion expected by the end of 2020. In line with the current replacement plan, 12 units of such equipment need to be replaced by the end of 2019 (of a total of 67 units that use coolants). The company will steadily implement this plan. Meanwhile, Lumphun Shindengen is replacing air conditioning facilities that use HCFC coolant with those that use HFC coolants (R407, R410, R32, etc.), having earmarked an annual budget for this purpose that reflects facility aging and business plans.

The Montreal Protocol allows for the manufacture of HCFC coolant until the end of 2029 if it is used to replenish air conditioning facilities existing as of 2020. However, the Shindengen Group is determined to completely abolish its use of ozone depleting substances ahead of the mandatory time limit.

Initiatives to preserve water resources

Having acquired certification under ISO14001 in 1999, Shindengen Philippines initiated water recycling. Specifically, water being discharged from its semiconductor manufacturing processes, including burring equipment that employs high-pressure water, undergoes pH adjustments and filtering and is reused in burring molded resin products, watering greenery on the factory premises, and washing company-owned vehicles. Today, the volume of water being recycled via these processes accounts for a stable 15% to 25% of Shindengen Philippines' annual water consumption volume, with the amount of water recycled in 2018 totaling 26,746m³.

Our ongoing efforts to preserve and sustainably utilize water resources via, for example, water recycling, are intended to support international initiatives aimed at addressing water depletion problems in the face of global population growth and climate change.

Initiatives for biodiversity

Recognizing the relationship between biodiversity and business activities, we are providing employee education at domestic Group companies using an in-house developed original DVD and setting up nesting boxes for birds at the Hanno Factory in accordance with "Action Guidelines for Conservation of Biodiversity in the Electrical and Electronic Industry." We have been promoting relevant activities in accordance with the eight items listed in the Aichi Biodiversity Target.

From FY2017, we are working on reducing forest loss by adopting FSC-certified paper for business cards and product catalogs, etc., in addition to corporate profile and IR reports. Shindengen Philippines encourages employees and their families to participate in tree planting activities sponsored by the Carmel-ray Industrial Park, where its factory is located, and those sponsored by local power companies. Furthermore, we donated approximately 100 mango trees to support afforestation activities sponsored by Bekasi Prefecture through Shindengen Indonesia.



Participation in afforestation activities

LCA & Scope 3 for High-voltage DC power supply (HVDC) Systems

| LCA (Life Cycle Assessment) | |
|----------------------------------|---|
| Evaluation target | CO ₂ emissions (per vehicle) |
| Energy (electric, hydroelectric) | 0.2t - CO ₂ |

Scope of evaluation: Shindengen Three E Co., Ltd. factories

[1] Implement inventory analysis

[2] Evaluate effects of CO₂ emissions

| Scope 3 | |
|---------------------------------------|---|
| Category | CO ₂ emissions (per vehicle) |
| 1 Purchased goods and services | 0.5t - CO ₂ |
| 4 Transport and delivery (upstream) | 0.3t - CO ₂ |
| 5 Waste products from operations | 1.0t - CO ₂ |
| 7 Staff commuting | 7.9t - CO ₂ |
| 9 Transport and delivery (downstream) | 18.4t - CO ₂ |

Trial calculations conducted for part of 15 categories of Scope 3.

[1] Calculations using primary data

[2] Calculations using estimated values and secondary data

Chemical Management

The Shindengen Group is committed to appropriately managing chemicals that are used in the manufacturing process and contained within our products by establishing the “promotion of chemical substance management” as part of our environmental policy.

The Chemical Substance Management Committee (consisting of Shindengen Hanno Factory employees and the domestic Group companies) regularly share with Group companies, the latest information regarding domestic and international laws and regulations related to REACH, EU RoHS Directives, phthalate ester and mercury pollution restrictions, green procurement, and

non-fluorocarbon equipment.

In accordance with the Act on Preventing Environmental Pollution of Mercury, the scope of legally regulated products using mercury will be expanded on January 1, 2021. With this in mind, we are systematically replacing equipment that uses mercury by introducing alternatives with no mercury content. However, we have found it difficult to replace some equipment used in manufacturing facilities. We are striving to address this problem and secure compliance with said act, rallying the strength of Shindengen Group.



Environmental Risk Management

At Shindengen, we have been conducting field surveys of soil and groundwater contamination since FY1997, focusing on the sites of Group companies that previously employed trichloroethylene in the cleaning process of semiconductor manufacturing. In February 2012, the remediation of the Shindengen Three E site was completed, and further remedial measures are under way at five more sites, including Shindengen Hanno Factory. Progress is regularly reported to the relevant administrative authorities.

PCB wastes owned by the Shindengen Group as well as wastes containing trace amounts of PCBs are managed according to the “Special Measures Law on Proper Disposal of PCB Waste.”

In FY2017, the processing and disposal of high-concentration PCB waste stored in Akita Shindengen was safely completed. Moreover, Shindengen Hanno Factory completed the disposal of large condensers with high concentrations of PCB in 2018. Currently, PCB-containing waste that must be disposed of by the factory consists only of small-size equipment containing PCBs and waste with only trace amounts of PCBs.

Going forward, local and national government waste disposal facilities will be utilized.

In FY 2018, the Shindengen Group received no administrative orders associated with the violation of laws, regulations or ordinances.



PRTR Report

(Unit : t)

| Name of Substance | No. | CAS No. | Amount handled FY 2017 | Amount handled FY 2018 | Emissions | | | | Amount transferred | |
|---|-----|------------|------------------------|------------------------|-------------|------------------|------------|------------------|--------------------|----------------|
| | | | | | Atmospheric | Public water-way | Soil | Landfill deposit | Sewage | Waste material |
| n-Alkylbenzenesul-fonic acid and its | 30 | — | 17.8 | 18.5 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 17.3 |
| Antimony and its compounds | 31 | — | 22.0 | 13.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.6 |
| Ethylbenzene | 53 | 100-41-4 | 16.3 | 15.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 |
| Ethylenediamine | 59 | 107-15-3 | 1.5 | 1.4 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 1.2 |
| Xylene | 80 | 1330-20-7 | 39.0 | 44.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.5 |
| Cumene | 83 | 98-82-8 | 1.9 | 1.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| Tetrahydro methyl phthalic anhydride | 265 | 11070-44-3 | 16.5 | 16.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| 1.2.4 -trimethylbenzene | 296 | 95-63-6 | 36.2 | 36.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.7 |
| 1.3.5 -trimethylbenzene | 297 | 108-67-8 | 8.5 | 8.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 |
| Naphthalene | 302 | 91-20-3 | 1.0 | 1.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Lead | 304 | 7439-92-1 | 20.7 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 |
| Hydrazine | 333 | 302-01-2 | 2.3 | 2.4 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 2.0 |
| Pyrocatechol | 343 | 120-80-9 | 2.6 | 2.7 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| Phenol | 349 | 108-95-2 | 3.4 | 3.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 |
| Hydrogen fluoride and its water-soluble salts | 374 | — | 86.7 | 87.5 | 0.3 | 2.8 | 0.0 | 0.0 | 0.0 | 62.0 |
| 1-Bromopropane | 384 | 106-94-5 | 14.5 | 11.7 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Boron compounds | 405 | — | 7.4 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Methylnaphthalene | 438 | 1321-94-4 | 28.5 | 24.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| Total | | | 326.8 | 312.2 | 14.5 | 3.2 | 0.0 | 0.0 | 0.0 | 170.6 |

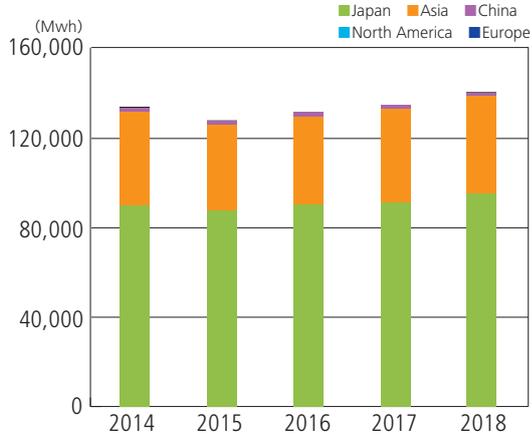
* This table lists all substances for which the Domestic Shindengen Group as a whole handles 1 t or more annually.

* The amounts handled have been rounded off to the nearest tenth, and therefore the amount handled does not always match the sum of emissions and amount transferred.

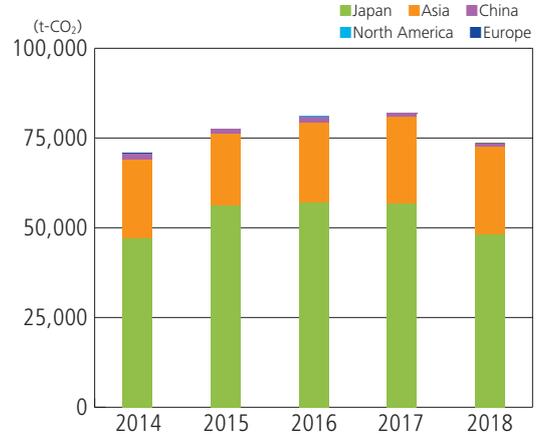
Trends in primary environmental loads associated with manufacturing activities

Energy

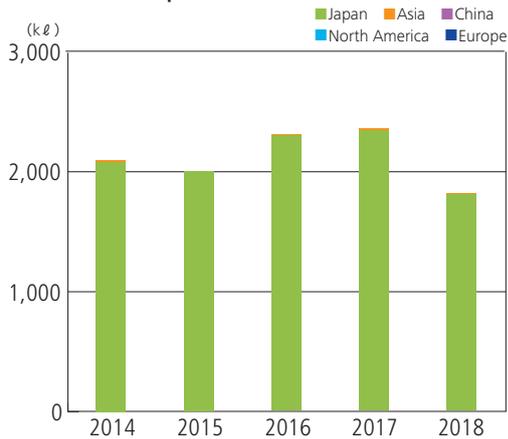
Electric Power Consumption



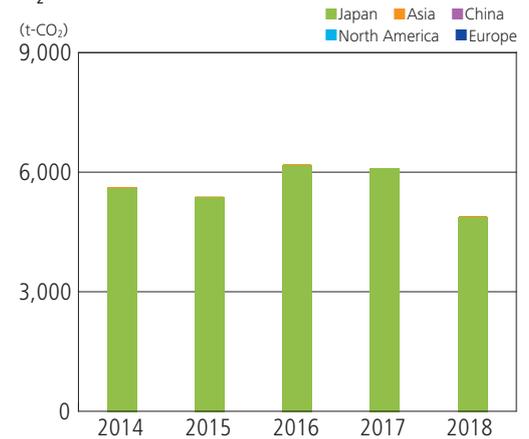
CO₂ Emissions



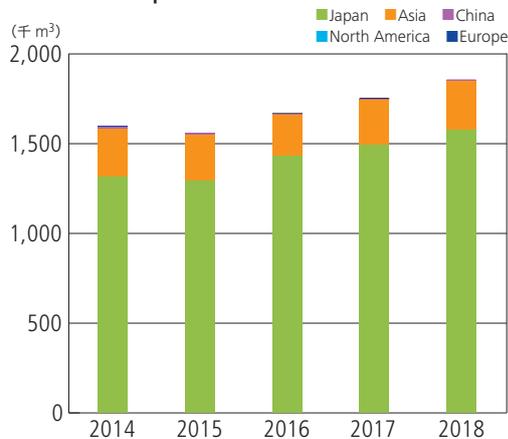
Fuel Oil Consumption



CO₂ Emissions

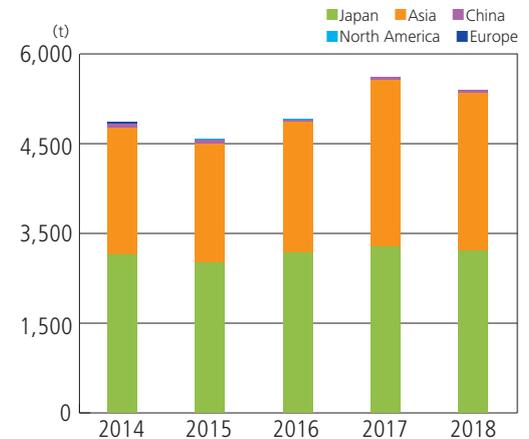


Water Consumption



Waste

Total Waste Emissions



Environmental Accounting

The Shindengen Group has introduced environmental accounting to better promote effective environmental management. It identifies and discloses environmental conservation costs and benefits quantitatively (economic benefits in monetary values

and environmental impacts in physical units).

The below figures are calculated or estimated according to our own standards and the Environmental Accounting Guidelines by the Ministry of the Environment, Japan.

Environmental Conservation Cost

(Unit : ¥ million)

| Category | Item | FY 2017 | | FY 2018 | |
|--|---|------------|------------|------------|------------|
| | | Investment | Cost | Investment | Cost |
| 1 Business area cost | | 142 | 279 | 235 | 275 |
| Breakdown | Pollution prevention cost | 27 | 157 | 30 | 131 |
| | Global environmental conservation cost | 113 | 32 | 201 | 30 |
| | Recycling, disposal costs | 2 | 90 | 4 | 114 |
| 2 Upstream/downstream cost | Cost of green procurement, and cost of analytical instruments | 6 | 11 | 1 | 83 |
| 3 Administration cost | Environmental education fees, certification costs, and internal audit costs | 0 | 231 | 0 | 291 |
| 4 R&D cost | Development of smart energy management system, power conditioner for solar power generation, ECU with idling function, and chargers for EV/PHEV | 0 | 69 | 0 | 130 |
| 5 Social activity costs | Participation in local community environmental activities | 0 | 4 | 0 | 4 |
| 6 Environmental remediation costs | Remediation of contaminated soil and groundwater | 34 | 27 | 34 | 68 |
| Total | | 182 | 621 | 271 | 851 |

Notes: Some numbers are estimates. Totals are subject to rounding differences.

Environmental Conservation Benefit

[1] Economic Benefit associated with environmental conservation activities

(Unit : ¥ million)

| Item | | FY2017 | FY2018 |
|--------------------------|---|------------|------------|
| Revenue | Revenues from sale of recycled products | 255 | 223 |
| Expense reduction | Energy expense savings from energy conservation (electricity, fuel oil, etc.) | 72 | 28 |
| | Disposal cost savings from reduced material usage or recycling | 0 | 0 |
| | Other expense savings from environmental improvements | 0 | 2 |
| Total | | 327 | 253 |

[2] Environmental Conservation Benefit (physical quantities)

| Item | FY2017 | FY2018 |
|-----------------------------|--------|--------|
| CO ₂ emissions | 81,505 | 78,897 |
| Electricity consumption | 131 | 141 |
| Fuel oil consumption | 2,364 | 1,819 |
| Water consumption | 1,763 | 1,869 |
| Amount of waste | 692 | 832 |
| Amount of material recycled | 4,957 | 4,599 |

Notes: For domestic electricity consumption, the following CO₂ emission factors are used: 0.000496t-CO₂/kWh (Tokyo Electric Power Co., Inc.) and 0.000573t-CO₂/kWh (Tohoku Electric Power Co., Inc.), 2004. For overseas electricity consumption, each country's CO₂ emission factor is determined using in the Greenhouse Gas Protocol Initiative guidelines.

[3] Energy-Saving Impacts of Products

The reductions in electricity consumption and fuel consumption by major energy-saving products of Shindengen Group developed and produced in FY2016 are shown in the table below, as well as the equivalent reduction of CO₂ emissions.

| Item | Reduction of electricity consumption | Reduction in CO ₂ emissions |
|-----------|--------------------------------------|--|
| IC series | 78.6 million kWh | 36.3 thousand t-CO ₂ |

Notes: Reduction of electricity consumption = (annual power consumption of old series – that of new series) x annual sales volume.

| Item | Reduction of fuel (gasoline) consumption | Reduction in CO ₂ emissions |
|-------------------------------------|--|--|
| DC-DC converter for hybrid vehicles | 73,630 kℓ | 171 thousand t-CO ₂ |

Notes: Reduction of fuel consumption = (annual consumption of gasoline vehicle – that of hybrid vehicle) x production volume.

The Shindengen Group is committed to conducting business in a way that is both ethical and complies with laws and regulations as well as to be adaptable to the ever-changing social values and expectations. The “Shindengen Group Guideline for Action” establishes a set of internal ethical principles that guide the Group’s actions at each stage of the value chain including marketing, product development, material procurement, production and logistics.

Approach to Compliance

Setting a Compliance Committee

The Shindengen Group considers compliance with laws and regulations, such as Competition Laws and Bribery Prevention Laws, as one of its top priorities. The establishment and timely improvement of effective compliance management procedures and standards is essential. Regular compliance training, as well as keeping up to date with the latest laws and regulations ensures Shindengen can meet its compliance obligations. On October 1, 2015, the Compliance Committee was established with Shindengen’s President as the Chair, and it aims to support the establishment, implementation and improvement of compliance management at domestic and overseas sites.

Committee actions include:

- **Revised Shindengen Group Guideline for Action**

In April 2016, we renewed the “Shindengen Group Guideline for Action” adding in terms regarding the observance of competition laws and bribery regulations. We sent this revised guideline to all employees of Shindengen Group companies under the name of the chairperson and also updated the website.

In FY 2017, overseas Group companies translated these the guideline for action into the local languages of their host countries to ensure that all are thoroughly informed and educated.

- **Competition Law**

In FY 2016, the working team of the Compliance Committee took the initiative to establish internal rules and emergency response manuals to ensure compliance with relevant laws.

In FY 2017, the Compliance Committee Secretariat supported the establishment of compliance programs at overseas Group companies and the development of regulations, etc., for each Group company. The subject activities were almost completed.

While implementing competition law education and training on an ongoing basis, in FY 2017 the Secretariat focused on business combination and conducted in-house training for staff divisions and sales departments concerning notes on pre-notification systems, etc., to authorities.

In FY 2018, employees at sales and other departments underwent training on competition laws that focused on what led to the latest incidents associated with overseas competition laws, risks arising from involvement in cartels (fines and criminal penalties) and leniency systems as well as other relevant topics, such as matters to be noted in the course of exchanging intelligence with competitors.



- **Bribery Prevention Actions**

In FY 2016, as with the competition law, the working team set up anti-bribery provisions and prepared operational manuals, etc.

In FY 2017, we implemented the same support as for the competition law, and the classifications, etc., of overseas group companies were upgraded. We also conducted in-house training on bribery regulation in the United States, United Kingdom and China for the sales department.

- **Initiatives for the Personal Information Protection Law**

With the enforcement of Japan’s revised Personal Information Protection Law, we created a new working team, mapped personal data and developed regulations, etc.

Based on the enforcement of the EU General Data Protection Rule (GDPR), the Secretariat and the European subsidiary (Shindengen UK) are working together to grasp the contents of laws, regulations and guidelines while seeking advice from experts, and have implemented practical measures, such as the data mapping of Shindengen UK. In addition, when personal data gleaned in the European Economic Area (EEA) is transferred to a Group sales subsidiary operating outside Japan, we made it a rule to require that said subsidiary sign a contract containing Shindengen Group standard contract clauses (SCC) aimed at sufficiently safeguarding personal data as required by the GDPR.

In January 2018, we invited experts on education and training on the Personal Information Protection Law, including the GDPR, to address board members and department managers.

Shindengen’s “Privacy Policy” recognizes protection of customer privacy and personal information is of the utmost importance. This Privacy Policy was updated in July 2019.

[Privacy Policy](#)



In-house Training on the Personal Information Protection Law

Whistleblowing System and Internal Reporting on Corporate Compliance

To ensure the Shindengen Group operates to the highest legal and ethical standards, an internal whistle-blowing system has been established. The system aims to provide a safe communication channel for employees to report and respond appropriately to illegal and/or unethical conduct. A whistleblower hotline was established that is responded to by the internal audit department and/or an external lawyer. The communication channels are available to domestic group companies. Overseas subsidiaries have similar safe communication channels and report periodically to head office management.

Compliance with the Subcontract Act

The Shindengen Group considers compliance with the Subcon-

tract Proceeds Payment Delay Prevention Laws (Subcontract Act), a special Law under the Anti-Monopoly Laws, essential for the promotion of fair trade. Shindengen's Materials Division is responsible for regular education training sessions, preventive actions and on-site compliance inspections for all group companies.

Anti-Social Forces

Shindengen is committed to fulfilling its social responsibilities by not engaging with any group or individual that endangers or harms society. Any contact with a group or individual that endangers or harms society identified internally, or by business partners is ceased immediately. Therefore, we kindly ask our stakeholders to sign the "Memorandum of the Anti-social Forces."



Risk management

Business Continuity Plan

The Shindengen Group's Business Continuity Plan (BCP) ensures risks are managed appropriately at times of large-scale disaster. The BCP conforms to ISO 22301 (Business Continuity Management) and provides guidance in managing operational and supply chain risks, until such a time as the business can restart operations as per normal.

The Business Continuity Management (BCM) Committee was established in FY2012, and is chaired by the President. This Committee has strengthened disaster response and business continuity measures under the "Disaster Prevention and Business Continuity Policy" and regularly distributes and collates risk management information from across the Group both domestically and internationally.

Annually, training and top management reviews are held to continuously improve the suitability, appropriateness, and effectiveness of the BCM system.



Business Continuity Training



Information security

Shindengen is committed to ensuring the security of all workplace information. An information security division is tasked with both protecting the Group's information systems from external attack, and preventing external leaks from internal sources. Information security education workshops are held annually for all employees (including temporary staff and part time workers). Intrusion detection and prevention software helps to protect, identify and respond to any external threats that may potentially compromise Shindengen's information systems. Additionally, the surveillance of employee internet activities and maintenance of computer operational logs through integrated monitoring software are designed to manage the risk of an information leak from an internal source.

Export Control and Security

To maintain international peace and security, the Shindengen Group complies with export laws, including the "Foreign Trade Control Law" and has established a strict export control system. Shindengen strives to prevent the spread and accumulation of excessive weaponry, with particular regard to weapons of mass destruction or social harm.

At Shindengen, the "Security Trade Control Committee" is tasked with ensuring export transactions meet the high ethical standards imposed by "Security Trade Control Regulations." Additionally, even in the case of domestic sales, the end-user is investigated to determine whether or not the product is to ultimately be exported, and has the potential to cause social harm and/or endanger international peace.



Emergency Response and Business Continuity Plan-Statement of Principles

The Shindengen Group Emergency Response and Business Continuity Plan is designed to promote a coordinated and effective response to a natural disaster or other unforeseen event in order to minimize the disruption to the operations of the Group as a whole.

1 Objectives

- 1 To ensure the safety of employees, customers and affiliated staff
- 2 To fulfill our delivery obligations to customers and enable the resumption of normal business operations as soon as practicable
- 3 To retain the confidence and respect of our customers and suppliers
- 4 To work together with and make a meaningful contribution to both the local community and wider society, particularly with regards to preventing secondary disasters

2

The Emergency Response and Business Continuity Plan will be reviewed both regularly and on an as-needs basis to ensure ongoing relevance and efficacy.

3

This Statement of Principles will be circulated widely both within and outside the Shindengen Group.



CSR activities in the area of procurement

Primary Challenges in Materials Procurement Based on ISO26000 Core Themes

| Core theme | Topic | Primary challenge |
|-------------------------|--|---|
| Human rights | Avoiding complicity | Conflict minerals The Shindengen Group is not an enterprise covered under the US Dodd-Frank Wall Street Reform and Consumer Protection Act., however from a human rights perspective, the inclusion of conflict minerals in products is investigated, and all possible efforts are made to effect their removal. |
| Fair business practices | Preventing corruption | Compliance Materials procurement based on 'Compliance with Laws and Regulations' as determined in the Shindengen Group Behavioral Guidelines. <ul style="list-style-type: none"> • Prevention and early discovery of illegal behavior • Preventing conflict of interest • Preventing leakage of confidential information • Prohibiting insider trading |
| | Fair competition | Compliance with Subcontracting Law The Shindengen procurement division, acting with overall responsibility, circulates through the Group companies periodically implementing preventative measures (e.g. hearings, education) to promote compliance. <ul style="list-style-type: none"> • Regular interviews • Education • Individual discussions Evaluation of suppliers To strengthen healthy relationships with suppliers, and to contribute to the development of these relationships, suppliers are evaluated annually on quality, prices, delivery dates, and business service, and awards presented to superior suppliers. |
| | Promoting social responsibility in the value chain | Exclusion of anti-social elements To ensure sufficient awareness of the importance of breaking relationships with anti-social elements, and from the viewpoints of social responsibility, compliance, and enterprise defense, the Shindengen Group promotes efforts to break these relationships. <ul style="list-style-type: none"> • Memorandum: Requests signing of a 'Memorandum on Exclusion of Anti-social Elements' with its suppliers. • Education : Implements participation in periodic compliance education in the materials division, and external lectures. |

Note: See 'ISO26000:2010' (published by Japan Standards Association) for core themes and topics.



Intellectual Property Protection

Intellectual Property Rights Policy

Shindengen understands the importance of respecting and protecting intellectual property rights. Three principles guide our actions:

- Do not infringe upon the intellectual property rights of other companies;
- In an instance where another company's patent is required, obtain agreement from that company prior to commercialization; and
- In an instance where a patent is infringed upon accidentally and subsequently identified, terminate such infringing activities within six months.

Invention Compensation

To encourage innovation, Shindengen guarantees the invention credit rights of employees.

Under the "Rules for Handling Inventions" we have established a compensation system that pays incentives for new designs as prescribed under the Patent Act, Utility Model Law and Design Law. Compensation can include application fees, registration fees, licensing fees and any transfer of license fees. Additionally, compensation is not strictly limited to instances of registered inventions, but rather assessed on a case-by-case basis before the determination of compensation from the "internal awards provision."

Intellectual Property Rights Education

By increasing awareness through education about intellectual property rights, Shindengen aims to encourage innovation, while maintaining compliance with the relevant legislation. Thorough research is conducted before any commercialization commences, in order to prevent the infringement of intellectual property rights.

Shindengen is also committed to protecting personal and privileged information. Regular training is provided to employees to empower them with the knowledge as to what constitutes intellectual property rights, and privileged information.

Regular brainstorming events to encourage inventions in the workplace are also held for each department.



Counterfeit Products – Zero-Tolerance

The Shindengen Group has a zero-tolerance policy for counterfeit products that infringe patents, models, designs and trademarks.

Beware of Counterfeit

Participation in the Kawasaki Intellectual Property (IP) Exchange Program

In addition to stepping up initiatives to reduce IP-related risks, Shindengen is participating in the Kawasaki IP Exchange Program sponsored by the Innovation Promotion Office of Kawasaki City's Economic and Labor Affairs Bureau and the Kawasaki Institute of Industrial Promotion. Through its participation in this program, Shindengen intends to offer open patents from its patent portfolio and thereby assist SMEs, venture startups and research organizations in their efforts to develop new products and businesses.

In the face of rapid technological advancement, a number of businesses are shifting their IP strategies from a "competition"-focused approach aimed at monopolizing IP rights to a "co-creation"-focused approach that promotes open innovation and facilitates collaborative business creation involving major companies, SMEs, startups and research organizations. Accordingly, Shindengen will contribute to this approach via the aforementioned program in line with its support of the United Nations' Sustainable Development Goal No. 9, which aims to "promote inclusive and sustainable industrialization and foster innovation."

Creating Value for Customers

We believe that the Shindengen Group's "quality with real value" is the product of the outstanding efforts of each employee at every step of the supply chain, reaching all the way to customers.

Our exacting management system encompasses design, manufacturing and quality control to build in quality and supply the best possible products to our customers.



Company-Wide Quality Policy

The Shindengen Group is focused on improving quality by employing the customer perspective in line with the following Company-Wide Quality Policy. With all employees contributing their ideas, we are taking a multifaceted approach in our creative efforts to manufacture products of high quality. To this end, we are engaged in quality improvement activities that encompass all processes, ranging from planning, design, development and manufacturing to shipment, and prioritize the customer perspective.

Company-Wide Quality Policy

"Manufacture the good-quality product and build up our customer's credibility with our wisdom and creativity"



Quality Management

ISO 9001 Certification within Shindengen Group

ISO 9001 is an International Standard that gives requirements for an organization's quality management system. The Shindengen Group (both domestic and international offices and affiliated companies) has obtained ISO 9001 to contribute to customers' operations by consistently providing products and services that meet their needs and expectations.

Promoting Activities for Improvement/ Kaizen

Annually, a presentation is held in June at the "Shindengen Group's Showcase of Improvement/Kaizen" event to share improvement activities undertaken across the Shindengen Group. Specific case studies are examined with a focus on building knowledge upon such successes across manufacturing processes and the Group.



Presentation on Improvement Case

| Office Names | Applied Standards | Certifying Institution | Acquisition Date |
|--|-------------------|------------------------|---------------------|
| Shindengen Electric Manufacturing Co.,Ltd. Shindengen Mechatronics Co.,Ltd. | ISO 9001 | JAB/UKAS | August 5 2021 |
| Shindengen (Thailand) Co., Ltd. | ISO 9001 | UKAS | August 27 2019 |
| Lumphun Shindengen Co., Ltd. | ISO 9001 | UKAS | June 27 2021 |
| Shindengen Philippines Corp. | ISO 9001 | UKAS | December 6 2020 |
| Guangzhou Shindengen Electronics Co., Ltd. | ISO 9001 | TGA | August 24 2018 |
| PT.Shindengen Indonesia | ISO 9001 | UKAS | February 22 2020 |
| Akita Shindengen Co., Ltd. Oura Factory | ISO/TS 16949 | IATF | July 17 2021 |
| Akita Shindengen Co., Ltd. Asuka Factory | ISO/TS 16949 | IATF | July 17 2021 |
| Higashine Shindengen Co.,Ltd. | ISO/TS 16949 | IATF | July 17 2021 |

(August, 2018)



Customer Consultation Desk of Power Conditioner for the Solar Power Generation System



As society places increasing focus on renewable energy, improving the customer service aspect of our power conditioners business is essential. Since September 2013, a customer

consultation desk has actively worked with customers to solve problems and improve customer satisfaction.

Community Participation and Development

The Shindengen Group recognizes that long-term corporate value creation is essential to its being able to contribute to solving social challenges, including the climate change issue. With passion and purpose, contributing to the development of local communities through business and social contribution activities, we work hand-in-hand to empower the local communities in which we operate.



Moving Towards a Low-Carbon Society

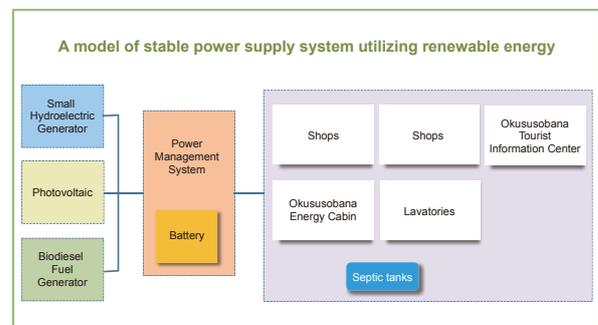
Community contribution initiatives

Shindengen Group aims to remain a company trusted by local societies, to this end engaging in various activities aimed at facilitating harmonious collaboration and achieving mutual prosperity with fellow community members. In Hanno City, an amusement facility named “Metsä” opened recently. This facility consists of the “Metsä Village,” which provides visitors with a glimpse of Nordic lifestyles, and the “Moominvalley Park,” which offers enchanting attractions based on the beloved cartoon Moomin. Shindengen Group donated a total of five standard EV/PHEV chargers to this facility, demonstrating its support of Metsä’s underlying themes, namely, “discover true richness of heart” and “find something that inspires your daily living.” These devices constitute a robust multiple-unit charging system, with two and three units, respectively, installed in parking spaces on the facility’s north and south sides. We will remain committed to helping communities in which we operate thrive while striving to deliver new products and new value that contribute to sustainable social development.

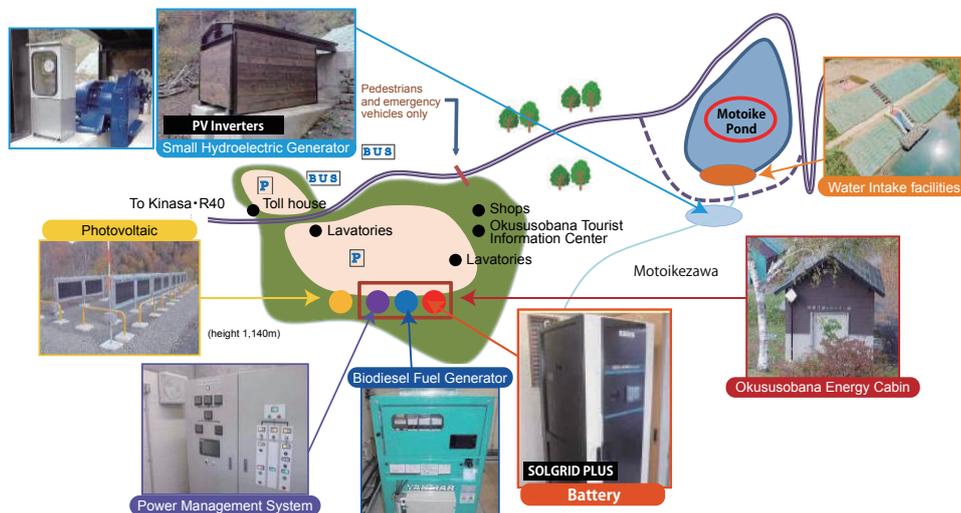


Initiatives to utilize renewable energy

In October 2018, Nagano Prefecture installed an electricity supply and demand management control system in the Okusobana Nature Park as part of a prefectural project aimed at popularizing such natural energy sources as hydroelectric, solar and biomass-fired power generation in rural areas. This system employs a combination of these energy sources and energy storage facilities and is expected to contribute to the creation of a Regional Circular and Ecological Sphere (Regional CES) powered by stable local energy sources. Thanks to the installation of this system, the nature park is equipped with a number of features that are attractive to tourists, including installations that provide visitors with easy-to-understand presentations on how a Regional CES works so that they can learn about natural energy in a fun way. As one of participants in this project, Shindengen Group supplied power conditioners and energy storage systems that facilitate the effective use of energy. Looking ahead, the Group will continue to deliver solutions to facilitate the use of renewable energy in order to help reduce carbon dioxide emissions, curb global warming and preserve the global environment. In these ways, we will contribute to environmental sustainability and sound economic and social development.



Overview of the introduced system in Okusobana Nature Park





Engaging Local Communities

Participation in the Hanno Spring Two-Day Walk

On May 26 and 27, 2018, the Hanno Spring Two-Day Walk was held in the Okumusashi area, a hiking hotspot famed for the clear waters of the Iruma River, panoramic views that can be seen from Mt. Tenran and beautiful greenery, which attracts hikers especially in spring. A team of Shindengen employees participated in this event as part of an in-house walking campaign and took on a 10 kilometer-hiking trail. Shindengen has been supporting this walking event for 13 years and company volunteers operate a water station along the trail, offering drinks and refreshments to participants free of charge. This year's event was blessed by clear weather both days, and the ice cream offered at Shindengen's water station proved extremely popular among both adults and children. Furthermore, 118 hikers from Shindengen, including new recruits, successfully completed the trail without any injury or accident.



The Hanno Spring Two-Day Walk



Hosting a "Summer Carnival" (Akita Shindengen)

Akita Shindengen is based in Yurihonjo City, a community located in southern Akita Prefecture. Amid a beautiful natural setting, this community is known for Mt. Chokai and a picturesque coastline along the Sea of Japan. Having launched operations in 1970 and with a current employee headcount amounting to 756, Akita Shindengen has played a vital role supporting the Shindengen Group since its founding as the Group's mainstay semiconductor factory. Every summer, Akita Shindengen hosts a summer festival, making a part of its premises open to the public. This annual event is intended to facilitate communication with local communities and residents while serving as an employee recreation program. On July 14, 2018, the 17th round of the festival was hosted, with employees, their families and community residents gathering in great number. As part of our efforts to achieve mutual growth with the communities in which we operate, we will continue holding the festival and strive to live up to the expectations of the many who look forward each year to this event.



Summer Carnival (Akita Shindengen)

Community Participation and Development

Clean Campaign (Higashine Shindengen)

As a member of the Omori Industrial Park Liaison Association, Higashine Shindengen strives to contribute to the communities in which it operates by, for example, implementing cleanup campaigns covering areas inside and outside the factory premises. Meanwhile, Higashine Shindengen (Katsuura) regularly participates in the “Clean Campaign in Minami Boso” aimed at maintaining the cleanliness of the beautiful beaches of Katsuura, as part of its efforts to facilitate communication with residents of neighboring communities.



Clean Campaign in Higashine Shindengen



Clean Campaign in Minami Boso

Shindengen's Athletics and Sports Team

Since its founding 60 years ago, Shindengen's Athletics and Sports Team has been supporting the development of the local community in Hanno City, Saitama Prefecture, through sports activities, particularly the local “ekiden,” or long-distance relay race. Even though those of us on the Shindengen team are not professionals, we proudly uphold the spirit of “amateur athletes” as part of our tradition. Regular employees of Shindengen, the team members train throughout the year during their off hours and on holidays. We look forward each year to engaging with the local community in a type of race that has become traditional in Japanese local communities as well as at the national level.



Shindengen Athletics and Sports Team

Community Participation and Development

Founding Anniversary Activities

- Lumphun Shindengen, Shindengen Thailand

Shindengen Group operates two subsidiaries in Thailand. Annually, on the anniversary of our foundation, the two companies invite local monks to offer traditional prayers for the safety and future growth of both the employees and the companies themselves.



Founding Anniversary Activities

Participation in the "FUN RUN Event"

- Shindengen Philippines

Every year, Shindengen Philippines sponsors the "FUN RUN," a marathon race in which a number of employees, their families and friends as well as people from surrounding communities participate. This event raises money by soliciting donations in amounts based on each participant's running distance. The 2018 race was held on May 26, 2018, and Shindengen Philippines used the funds raised via the event to purchase such goods as TVs, solar panels and PCs that were donated to two nursing care facilities and eight schools in the neighboring area.



FUN RUN Participants

Factory Tours for Students

(Akita Shindengen and Higashine Shindengen)

Every year, Shindengen Group factories proactively invite students to tour their facilities in order to give them a glimpse of what is it like to work for a manufacturer. In FY 2018, Akita Shindengen accommodated a request from Akita Prefectural University and welcomed professors and students who wished to join its factory tours. These people got the opportunity to take a close look at the production frontlines and learn about how Shindengen products are manufactured. Higashine Shindengen also accepts requests from local junior high schools with students wanting to take part in factory tours.



Professors and students from Akita Prefectural University

Third-Party Written Opinion



Naoko Hase
Manager, the Center for the Strategy of Emergence
ESG Research Center, the Japan Research Institute, Ltd.

I hereby submit a third-party opinion with regard to the Shindengen Group's CSR activities and its information disclosure practices. This opinion letter is prepared based on my findings from the Shindengen Group CSR Report 2019, as well as insights gleaned during my visits to the Company's Head Office, where I participated in discussions with its representatives.

The Shindengen Group is engaged in production and sales activities in Japan, elsewhere in Asia, North America, Europe and other regions around the world, with its operations becoming increasingly globalized. Accordingly, the Group is ever more focused on sustainability and reviewing its CSR activities in reference to such international standards as the United Nations Global Compact, the OECD Guidelines for Multinational Enterprises and the Sustainability Accounting Standards Board (SASB) Standards while striving to meet the expectations of its business partners.

In light of these factors, I rate the Group's FY 2018 initiatives highly, particularly with regard to their stronger focus on respecting human rights. In addition, the Group established the Shindengen Group Human Rights Policy. Paying due respect to the Guiding Principles on Business and Human Rights, the policy is expected to help Group members promote across-the-board efforts to advocate for human rights. Furthermore, this creation of the policy entailed updating the Group's Code of Conduct to conform with the spirit of the new Human Rights Policy.

Based on this policy, the Shindengen Group also prepared its Supply-Chain CSR Deployment Guidebook with the aim of ensuring that all of its supply chain constituents fulfill their social responsibilities vis-à-vis environmental and human rights protection. In FY 2019, the Group began conducting surveys to assess the status of human rights protection at suppliers. Going forward, I expect the Group to disclose to stakeholders these surveys' scope, items covered, respondent ratios and other key factors. I would also encourage the Group to consider establishing numerical targets for surveys, including for the ratio of respondents or the ratio of suppliers being surveyed, to improve the effectiveness of its CSR procurement activities.

Moreover, the latest edition of Shindengen's CSR report includes an explanation of its newly established Company-Wide Quality Policy. This policy clarifies the Company's commitment to gearing up its quality improvement efforts and prioritizing the customer perspective. I believe that possessing written policies on quality control is critical to ensuring a consistent approach throughout the Group. Looking ahead, I expect that the Company will similarly formulate Group policies on such matters as the creation of an inclusive workplace that helps diverse human resources succeed and the maintenance of optimal work-life balance. Currently, Shindengen is discussing concrete action plans to promote work style reforms and improve employee productivity. In particular, I was notified of a discussion now under way focused on the adoption of flexible work styles in conjunction with the opening of the Asaka site scheduled for 2021. This would entail, for example, the introduction of multiple working hour options for employees and the expansion of the satellite office network. These measures, however, should be known to all. Accordingly, I recommend that written policies on these measures be established and publicized internally and externally so that all employees may benefit.

The Shindengen Group is striving to help reduce the environmental burden associated with the use of finished products. To this end, the Group is developing pioneering products in a variety of fields, with its lineup encompassing devices that help reduce energy consumption, motorcycle components designed in conformity with environmental regulations enforced in countries around the globe, vehicle-mounted DC/DC converters for electric vehicles, large-size quick chargers and wireless chargers. I give top marks for the Group's contribution to concerted efforts now under way to reduce the volume of carbon dioxide emissions from human activities via the provision of the aforementioned products.

With regard to the utilization of renewable energy, the Group is a regular participant in the "Citizens of Yamagata CO2 Reduction Value Project" and regularly purchases CO2 credits created by renewable energy businesses. Under the J-Credit Scheme, the Group is entitled to use these credits to offset the volume of carbon dioxide emissions attributable to energy consumed by its Hanno Factory. Furthermore, the Group supplied its power conditioners and energy storage facilities to support an electricity supply and demand management control system developed in the Okususobana Nature Park. Part of a project being undertaken by Nagano Prefecture that is aimed at popularizing natural energy sources in rural areas, this system employs a combination of renewable energy sources and energy storage facilities. I hope that Shindengen will continue striving to help popularize the use of renewable energy.

Today, the Paris Agreement, which provides an international framework for global warming countermeasures and the United Nations' Sustainable Development Goals (SDGs) aimed at resolving universal issues society is now confronting, are giving direction to public attention. Shindengen boasts an array of products that could well contribute to the realization of the SDGs. Accordingly, I recommend that the Company draw up a clear roadmap explaining how it aims to contribute to the SDGs and the roles its individual products would play in this regard. Simultaneously, I encourage Shindengen to regularly conduct quantitative assessments of the environmental and social impacts of its operations and publicize the findings.

Commentary on the Third-Party Written Opinion

We thank Naoko Hase, an ESG Analyst from the Japan Research Institute, Ltd., for her valuable comments on, and suggestions for, our Group's CSR activities.

In FY 2018, the Shindengen Group stepped up its initiatives related to human rights and environmental protection. We will remain committed to promoting CSR activities, including those aimed at addressing the social and environmental issues we are presently facing. In conjunction with the opening of the new site, we will also push ahead with work style reforms to improve productivity.

We will also contribute to such international initiatives as the Paris Agreement and SDGs. To this end, we have determined priorities with regard to relevant issues to be tackled by the Shindengen Group and incorporated them into our Medium Term Business Plan.

As we aim to be a company deserving of the trust of all stakeholders and to achieve mutual and sustainable growth in tandem with society, we ask for your continued guidance and support.

CSR Committee Secretariat
Shindengen Electric Manufacturing Co., Ltd.

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<https://www.shindengen.com/>