

#### NISSIN ELECTRIC CO., LTD.

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#### Sekison-tei

**D** OIL INK

Sekison-tei was the beloved villa of a great writer Junichiro Tanizaki, which was initially known as Senkan-tei. The almost century old compound faces the Tadasu-no-Mori Forest of the Shimogamo Shrine World Heritage site, and its Sukiya-style building and stroll style garden with pond made it a favorite of Tanizaki. He passed over the residence to Nissin in 1956 when he left Kyoto. At that time, he requested that the villa be maintained in the same condition since he wanted to see it on his visits to Kyoto. The name Sekison-tei was given by Tanizaki, and a framed calligraphy piece written by Tanizaki bearing this name hangs in the main house.

The Nissin Electric Group continues to conserve Sekison-tei in the same condition as Tanizaki handed it over some 57 years ago as a symbol of its code of conduct "Integrity, Trust and Long-term Relationships."







# Issin Electric CO., LTD.

# NISSIN REPORT 2013

Company Profile / Sustainability Report

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## **Editorial Policy**

This report presents the Nissin Electric Group's corporate data, business activities from fiscal 2012, as well as its approach to corporate social responsibility (CSR). The results of our core CSR activities from fiscal 2012 can be found in the table on pages 15 and 16. Our responsibility and actions with stakeholders are summarized around the Five Trusts of our Code of Conduct. Photographs of our employees, who form the front lines of our CSR efforts, are used throughout the report to convey our activities in a clear and easy-to-understand manner. Readers are asked to provide their frank and honest opinion so that we may reflect this important feedback in future reports.

#### Reporting period: April 1, 2012 to March 31, 2013

: June 2013 Published Next edition : June 2014 Previous edition : June 2012

#### Reporting Areas and Scope

#### Society

Nissin Electric Co., Ltd. and the following eight affiliates in Japan NHV Corporation/Nissin Business Promote Co., Ltd./ Nissin Denki Shouji Co., Ltd./Nissin Systems Co., Ltd./ Nissin Ion Equipment Co., Ltd./EcoTron Co., Ltd./ Nippon ITF Inc./Nissin Pulse Electronics Co., Ltd.

#### • The environment

Nissin Electric Co., Ltd. and the following five affiliates in Japan NHV Corporation/Nissin Business Promote Co., Ltd./ Nissin Ion Equipment Co., Ltd./Nippon ITF Inc./ Nissin Pulse Electronics Co., Ltd.

\*The initiatives of certain overseas affiliates are also highlighted.

湯之盤銘曰 苟日新 日日新 又日新

GLOBAL This mark denotes a section on our overseas initiatives.

#### Reference Guidelines

Sustainability Reporting Guidelines G3.1 by the Global Reporting Initiative (GRI) Environmental Reporting Guidelines 2012 by the Ministry of the Environment, Japan

#### **Origin of Company Name**

The name "Nissin" is derived from the inscription on the basin used by King Tang, the founder of the Yin Dynasty (17th – 11th century B.C.). This inscription means: "Truly new each day. New each and every day. Again, new each day." According to the "Great Learning," one of the Four Books (China's classic works on Confucianism), the noble and benevolent ruler engraved these words on the basin, which he used every morning, as a constant reminder of the importance of making continuous and untiring efforts to innovate himself every day.

Combining the two Chinese characters, "nichi" (day) and "shin" (new), used in this inscription, the company name was created so that, following this precept, we would strive to develop original and innovative techniques each and every day to forge a bright future for both people and technology.





 Corporate Social Responsibility (CSR): The responsibilities that a company maintains toward stakeholders involved in its business activities. These responsibilities include fair business practices, product quality improvements, environmental consideration, and helping to build a sustainable society for the future.

Sharing our commitment to fulfill our role as a contributing member of society to stakeholders



Starting this year, Nissin Electric will begin publishing the Nissin Report, which combines our company profile and sustainability report into a single concise report.

Our company profile has traditionally been used to introduce the Nissin Electric Group by showing the types of products we manufacture. Whereas, our sustainability report highlighted not only our business activities, but also our community fellowship activities to emphasize our connections with society. While the company profile did provide an overview of our products and businesses, I could not help but feel that the content lacked a certain degree of warmth. The sustainability report conveyed to readers not only our business activities, but also the achievements we made through our business activities as a contributing member of society, as well as any areas where we were unable to achieve our targets. In this regard, I feel that the sustainability report provides the human aspects of our commitments and trial and error approaches.

Whenever I meet with a new company I always read their company profile, but now that I think about it, their

sustainability report may have enabled me to better understand that particular company because it provides a more human touch to presenting its culture, character, and background.

With this in mind, we believe that combining the company profile with the sustainability report will help us to more accurately convey our businesses, culture, and personality to our stakeholders, which served as the impetus behind the decision to publish only the Nissin Report from now on.

Through this new integrated Nissin Report, we hope to present an overview of our business activities and products as well as our commitment to fulfill our role as a contributing member of society. I also hope that you read about our challenges and struggles as well, so that gain a better understanding of our vision for the future, stance, and business activities in a more affable manner.

I conclude my message for this first-ever Nissin Report by humbly asking for your continued support and patronage of the Nissin Electric Group as we move forward.

June 2013

Hideaki Obata. President

# Aspiring for greater growth as a multinational company that supports society and industry

#### Company Outline (as of March 31, 2013)

Company Name Nissin Electric Co., Ltd. April 11, 1917 Incorporated Stated Capital 10,252,840,000 yen Employees 4,971 (Consolidated)

**Issued Shares** Stock Code Operations

107.832.445 shares 6641 (First Section of the Tokyo Stock Exchange) Manufacture and sales of electrical equipment and instruments as well as ancillary construction works

#### Corporate Logo NISSIN

ELECTRIC (A unified corporate logo for all Nissin Electric Group companies)

#### Employees by Location (Consolidated)



#### Sales Composition (FY 2012; Consolidated)





By Customer

Net Sales (Consolidated)





## History

- 1910: Founded as Nissin Kogyo.
- 1917: Incorporated as Nissin Electric Co., Ltd.
- 1937: Began cooperation with Sumitomo Electric Industries, Ltd.
- 1945: Took over the capacitor production business of Sumitomo Electric Industries, Ltd.
- 1963: Built the Maebashi works.
- 1968: Built new works at Kuze and Kujo.
- 1970: Started business of charged particle accelerators, and established Nissin High Voltage.
- (2003, NHV Corporation, took over the business of Nissin High Voltage.) 1980: Established Nissin Denki Shouji Co., Ltd. for the sale of electrical equipment and machinery.
- 1984: Established Nissin systems Co., Ltd. for the design and sales of computer software
- 1987: Established Nissin Electric (Thailand) Co., Ltd
- 1991: Established Nissin Allis Electric Co., Ltd. in Taiwan
- 1995: Established Wuxi Nissin Electric Co., Ltd. in China
- 1999: Established Nissin Ion Equipment Co., Ltd. within Kuze works for the manufacture, installation, and servicing of ion implanter.
- 2001: Established Nissin Electric Wuxi Power Capacitor Co., Ltd. in China. (2004, Changed the name to Nissin Electric (Wuxi) Co., Ltd.)

- 2001: Established Beijing Beikai Nissin Electric HV Switchgear Equipment Co., Ltd. in China
- (2006, Changed the name to Beijing Hongda Nissin Electric Co., Ltd.) 2002: Established Nissin Electric Wuxi Co., Ltd. in China.
- 2005: Nippon ITF Inc., an affiliated company conducting thin-film coating services, became a subsidiary of Nissin.
- 2005: Established Nissin Ion Equipment Co., Ltd., Shiga Plant/Plasma Technology R&D Center.
- 2006: Established Nissin Advanced Coating (Dongguan) Co., Ltd. in China. (2011, Changed the name to Nissin Advanced Techology Electric (Dongguan) Co., Ltd.)
- 2007: Established Nissin Advanced Coating Indo Co., Ltd.
- 2007: Became a consolidated subsidiary of Sumitomo Electric Industries, Ltd.
- 2010: Established Arteche Nissin, Sociedad Limitada in Spain.
- 2010: Established Nissin Ion Equipment USA, Inc.
- 2010: Established Nissin Hengtong Electric Co., Ltd. in China, acquiring stock of local switchgear maker.
- 2011: Established Nissin Ion Hightech (Yangzhou) Co., Ltd. in China.
- 2011: Established NHV Accelerator Technologies Shanghai in China.

## Medium-to-Long-Term Business Plan "VISION 2015"

The Nissin Electric Group is currently implementing initiatives under a five-year medium-to-long-term business plan called "VISION 2015" that was launched in fiscal 2011. Under this plan, we are working to achieve the numerical targets of 150 billion yen in net sales and 12 billion yen in operating income by fiscal 2015, marking a 150% increase respectively over the five-year period. The main focus of this plan is to leverage our core technologies to make our operations more multifaceted and more global in



## Research and Development (R&D)

Making use of the R&D results that we have accumulated over a long period, we are working to create stable energy systems, manufacture products that contribute to reductions in CO2 emissions and develop next generation products applying our charged particle beam-oriented techniques. We are also committed to developing new techniques on a daily basis so that we can continue to grow as a global company that provides

environmental and energy solutions while contributing to society.



nature. To that end, we have added two new segments, Renewable Energy and Environment, and Life Cycle Engineering, to our existing core businesses of Power System Equipment, and Charged Beam Equipment and Processing. We will take a balanced approach to growing each of these four segments and exert our best efforts to expand each segment globally. By doing so, our aim will be to transform ourselves into a group of companies that can achieve more stable and sustainable growth.



# **Delivering Satisfaction to Customers through Optimized** and Localized Production and Sales Structures

#### Manufacturing Sites in Japan

Head Office & Works (Ukyo-ku, Kyoto) (Nissin Electric Co., Ltd.) (NHV Corporation)



(Land area: 103,700m<sup>2</sup>)

#### Major products:

Switchgears, transformers, capacitor, power conditioners for photovoltaic systems, photovoltaic systems, reactors, voltage dip compensators, supervisory control systems, vehicle recognition system, electron-beam processing systems, electron-beam processing services, and thin-film coating services

#### Kujo Works (Minami-ku, Kyoto)



(Land area: 7,000m<sup>2</sup>)

Major products: Switchgears and power conditioners for photovoltaic systems

#### Service Sites

We have established an extensive field service network staffed with expert after-sales service personnel in order to determine the needs of our customers and provide the best solutions.

This network spans from Hokkaido in the north to Okinawa in the south, covering every region in Japan. Engineers from our core Kyoto, Maebashi, and Tokyo sites as well as partners from each region also closely work together to ensure an immediate response if any problem were to occur in one of our products.

> Kyushu and Okinawa Sales Office (Kumamoto and Fukuoka)

#### Maebashi Works (Maebashi City, Gunma)



(Land area: 186.700m<sup>2</sup>)

(Koka City, Shiga)

Major products: Gas insulated switchgears, circuit breakers, instrument transformers (voltage transformers, current transformers, combined instrument transformers, etc.), electron-beam processing services, and thin-film coating services



(Land area: 12.300) Major products:

Kuze Works (Minami-ku, Kyoto)

Ion implanters for semiconductors, ion implanters for Flat Panel Displays (FPDs), and thin-film coating services

# List of Group Companies

#### **Overseas**





(Land area: 53,500m<sup>2</sup>) Major products: Ion implanters for semiconductors and ion implanters for Flat Panel Displays (FPDs)









#### **Businesses and Products**

# Pursuing safety, stability, and efficiency as a leader in the electrical infrastructure supporting industry and society





Processing Syste





Thin-film Coating Equipment



Thin-film Coating Service



# **Ensuring safe and efficient supply** of electricity



#### Net Sales (100 million yen) — 460—**462**— 462 400 300 100 2010 2011 2012 (FY)

#### **Segment Overview**

#### Making contributions to society by ensuring a stable supply of electricity

This business segment focuses mainly on substation facilities which convert power voltage to a level suitable for equipment. The equipment monitors and controls the voltage level to ensure safe and efficient electric energy supply from a power station. Our 66/77kV Gas Insulated Switchgear, which enjoys a large share of the domestic market, demonstrates unparalleled compactness thanks to Nissin Electric's unique high-voltage technology. Power capacitors designed for use by electric companies have been dominating an almost 100% domestic market share recently, for which our company is called "Nissin for Power Capacitors."

We have also established a production site in China and built up a solid track record in the country. Going forward, we will expand our business footprint in the ASEAN region, which is expected to see further economic growth and an influx of Japanese companies, and contribute to the development of local industry in the process.



#### Maximizing space in substations and reducing energy usage during the manufacturing stage

Gas insulated switchgears switch power sources at substations and break circuit in the event of an accident or emergency.

By using sulfur hexafluoride (SF<sub>6</sub>) gas as an insulator, we are able to enclose high-voltage power equipment in compact and airtight cases, reducing the overall size of this power system equipment.

Smaller equipment means that it can now be installed in limited spaces, which not only meets the needs of our customers, but also reduces the amount of materials and energy used during the manufacturing process. In turn, this also reduces CO<sub>2</sub> emissions.

66/77kV Compact Gas Insulated Switchgear



Capacitor Voltage Transformer(CVT)

Instrument Transformers are installed to accurately convert high voltage and large currents into the applicable voltage and current for electric instruments or relavs.



Power Capacitor

Power capacitors are placed in parallel with loads for power factor corrections or voltage regulations in power transmission and distribution systems. Power capacitors help to promote the effective use of energy by improving the quality and reliability of power systems



Shunt Reactor

Shunt reactors are a type of phase modifying equipment that functions in the exact opposite as a power capacitor, consuming phase advancing reactive power. Shunt reactors also help to promote the effective use of energy by improving quality and reliability of power systems.

# **Contributing to higher performance** of state-of-the-art equipment

#### **Segment Overview**

#### Strengthening global product supply capabilities

In the charged beam equipment and processing business, we apply our long nurtured high-voltage and charged particle technologies to manufacturing equipment for cutting-edge products: various types of equipment used for manufacturing semi-conductors and flat panel displays, electron beam processing systems used for improving the quality of automobile tires and electric wires, and thin-film coating services designed to improve the performance of tools and automobile parts. This business segment offers potential for future growth. In fiscal 2012, we commenced operations at new manufacturing sites built in China for electron-beam processing systems and for ion implanters for semiconductors and for Flat Panel Displays (FPDs). Going forward, this segment will focus on delivering a wider range of services to customers in China and

the ASEAN region as well as on the development of new thin-film coating applications.



#### World's first equipment compliant with sixth generation glass substrates (1,500mm × 1,800mm)

careful control.

Ion Implanter for FPD



Ion Implanter for Semiconductor

An ion implanter for semiconductors is an essential piece of manufacturing equipment used to make semiconductor devices found in computers, mobile devices. and a host of other digital products. They use the same technologies as an ion implanter for FPDs.



Electron-Beam Processing System

An electron-beam processing system is used to manufacture heat resistant coated electric wires, heat-shrinkable tubing. polvethylene foam, and automobile tires. Electron-beam processing systems are also being widely used in an increasing number of other applications, such as for sterilization of medical equipment, and in environmental protection.

Share of Total Sales







2011

2012 (FY

Our jon implanter for small/medium high-definition Flat Panel Displays (FPDs) is a critical piece of manufacturing equipment for small/medium high-definition displays used in smartphones and other high-end mobile devices.

2010

The electrical properties of semiconductor devices and FPDs are brought to life after a mixture of gases including phosphorous and boron is transformed into plasma, from which ion beams are extracted and accelerated using direct-current voltage and then injected into a wafer or glass substrate under



Thin-film Coating Service

Thin-film coating services significantly improves the life and performance of machine tools, metallic molds, and various machinery parts by providing superior surface smoothness, high temperature endurance, and wear resistance. These services are helping industry in a variety of ways, including extending product life. and helping to reduce the use of materials

# Coping with global social needs





#### Contributing to the greater popularization of photovoltaic systems

**Segment Overview** 

This business segment addresses social needs identified on a global scale, such as use of renewable energy sources, subsequent need for more stable electric power systems, electricity infrastructure improvement and shortage of water resources. In the renewable energy business, we provide power conditioners and photovoltaic generation systems, as well as products used for construction of next-generation power transmission and distribution systems (Smart Grid). In the environment business, we offer electrical equipment and energy management system (EMS) related products for water treatment facilities.

In fiscal 2012, we expanded our lineup of photovoltaic system products, centered on power conditions, given rising awareness toward renewable energy solutions. Going forward, we will continue to expand the number of products we offer not only to Japan, but also to markets around the world.



Power Conditioner for Photovoltaic System



Photovoltaic System

A photovoltaic system consists of a photovoltaic module, powerconditioner, and instrumentation/display for monitoring/indicating generation and operation statuses.



for photovoltaic systems

arrays as well.

system into alternating current electricity.

Leading conversion efficiency in power conditioners

A power conditioner converts direct current electricity produced from a photovoltaic

greater than 95% (including gas insulated transformer), can reduce conversion loss

and maximize the use of generated electricity. Using a parallel running system,

our power conditioners can also be used in large, megawatt=class photovoltaic

Our SOLARPACK power conditioner, which achieved a conversion efficiency of

Supervisory Control System for Waterworks

In this system, operating data from electrical substation equipment, pumps and other equipment in a water treatment facility are put together to streamline the supervisory and control of the entire facility. This system can also support rainwate measures and operations based on water demand forecasts, as well as provide Internet integrated supervisory control.



Supervisory Control System for Expressways

In this system, operating data from various expressway infrastructure, including power distribution equipment, power system equipment, lighting, tunnel ventilation fans, and road signboards are put together to closely supervise and control road conditions to support expressway safety

# Providing support at every stage of the equipment life cycle for customers

#### **Segment Overview**

#### Supporting customer facilities in a host of stages

Over the entire life cycle of Nissin Electric Group products delivered to our customers, we provide comprehensive support services, including installation, adjustment, inspection and maintenance. Our product life cycle management solutions include product life assessment by inspecting the equipment and analyzing measurement data, product life cycle extension by monitoring operational status and taking necessary measures, and management of operations.

We focus on inspections and repair work for aging equipment to help customers ensure safe operations by prolonging service life, and also propose rational replacement schedules. Going forward, we will look to expand our life cycle engineering business and further enhance customer satisfaction by developing new services.



#### Prolonging service life and proposing repair and replacement schedules through facility inspections

We propose the best ways to prolong the service life of equipment as well as repair and replacement schedules after carefully checking the conditions of substation equipment currently in use, and for any abnormalities. We provide services under four fundamental principles: (1) always give priority to safety and quality; (2) earn customer trust and peace of mind; (3) act as a sound life cycle consultant; and (4) develop and grow together with the customer.

Facility assessment



Equipment installation

We select the safest possible way to deliver the equipment from the planning stage, with special consideration given to site conditions and installation cost. When using a large trailer, we carefully study road width and buried objects around the site to ensure that none of the customer's equipment or roads are damaged during the process.



On-site testing

We perform on-site testing that includes operation check and interlock test to confirm that the system has been built to customer specifications





Maintenance

We perform regularly scheduled maintenance to ensure that our customers can use their equipment safely for extended periods of time. This maintenance is conducted based on when the equipment was first manufactured and include checking for abnormalities, cleaning, and part changes.

# **SPSS**<sup>®</sup> Balancing Electricity Conservation with a Stable Supply of Power

#### Smart Power Supply Systems

Japan has been plaqued with chronic power shortages following the Great East Japan Earthquake, and this experience is heightening demand for the utilization of renewable energy, electricity conservation, and solutions for avoiding risks associated with power outages.

In order to satisfy these needs, the Nissin Electric Group has developed a Smart Power Supply System® (SPSS) that simultaneously balances electricity conservation with a stable power supply for customers with extra-high-voltage power system equipment. Today, verification is currently taking place at our head office and Maebashi works aimed at the eventual commercialization of this solution.



The key to achieving the SPSS solution lies in the visualization and control of electricity usage through an Energy Management System (EMS). An EMS is a system that controls and optimizes energy usage in buildings and factories using information communication technology. The Nissin Electric Group not only aims to optimize electricity use, but also to visualize the aging conditions of equipment, and to reduce risks associated with power outages through the use of power equipment monitoring technologies.

One of the features of SPSS is that it provides an optimum mix of power sources. Power can be used more efficiently by controlling the mix of power sources, including grid power provided by power companies, and the power generated by a customer's own systems. Equipment owned by customers may include a photovoltaic system which generates power during the day time, a privately-owned generator, or power storage unit for emergencies. Our aim is to create the most optimum mix of power sources to conserve energy as well as supply power during a power outage.

#### Preventing power outages through monitoring and inspecting power equipment

Equipment status monitoring is another unique feature of SPSS. With factories and buildings becoming more computerized in recent years, whenever a problem occurs with power equipment, it could lead to suspended factory production or impact social activities. The deterioration of power equipment that has been in use over a long period of time increases the risk for sudden accidents or failures to occur. Through the use of our proprietary monitoring technology, the Nissin Electric Group's SPSS aims to prevent power outages due to accidents, as well as help customers formulate their Business Continuity Plan (BCP).

with our on-site systems.

We installed a 110kW photovoltaic system at the company head office and began the visualization of electric power load using our own EMS in fiscal 2011. In fiscal 2012, we began collecting information on the status of power equipment deterioration through the installation of a supervisory system for factory power equipment. Furthermore, a 550kW photovoltaic system was installed at the Maebashi works. In fiscal 2013, we plan on starting the verification of operations using an optimum mix of power sources with a cogeneration system, and battery energy storage system installed at the Maebashi works. We hope to compile examples following the verification process, and eventually

Shuzo Arakawa

conservation.

## SPSS developed by combining our proprietary monitoring technology with visualization and control of electricity usage through an EMS

#### Conserving energy with an optimum mix of power sources

#### SPSS verification currently underway in-house

The EMS essential for our SPSS solution is made possible with equipment that generates, stores, and conserves energy by utilizing our strengths in system technologies and power quality enhancement technologies. We are currently conducting verification for the SPSS solution by connecting this equipment

provide new value to our customers who receive power through extra-high voltage by enabling them to achieve a balance between stable power supply and energy

#### Motonobu Fujiwara

# Pursuing a systematic approach to CSR activities with a focus on the autonomous involvement of each and every employee

**Corporate Principles and Five Trusts** 

#### Combining our fundamental approach and unwavering commitment to business.

Since its founding in 1910, the Nissin Electric Group has constantly refined its original technologies and delivered high quality products and services to its customers. Through this, we have earned the trust of customers and continually strived to make contributions to the fundamental needs of society and industry.

The Corporate Principles of the Nissin Electric Group and the Five Trusts, both drawn up in November 2005, represent the combination of our fundamental approach and unwavering commitment to business.

Corporate Principles of the Nissin Electric Group

#### Mission – Forge a bright future for both people and technology

With the aim of realizing a sustainable society, gentle to humans and the environment, Nissin Electric develops original technology to meet the fundamental needs of society and industry.

#### Company Code of Conduct - Integrity, Trust and Long-term Relationships

We take the following Five Trusts as the point of origin for our activities. Through these Trusts, we strive to promote the growth of the company and foster the personal development of its employees.



#### **Basic Policies**

The Nissin Electric Group's Basic Policies for CSR Activities

(1) Accomplish our Mission, "Forge a bright future for both people and technology," and the Company Code of Conduct, "Integrity, Trust and Long-term Relationships." (2) Empower each and every employee to get involved willingly and steadily in CSR activities, based on the approach above.

#### Domains of CSR Activities



Targets and Results of **CSR** Activities

	Doma	in / Target	Page	Core focus areas	
Trust		<b>Customers</b> Enhance satisfaction	17P	Quality improvement activities	Improved accuracy of improved quality throu
				Customer satisfaction enhancement activities	Distributed e-mail new promoted life cycle eng
		<b>Employees</b> Foster and enhance job satisfaction	18P	Optimize diverse workforce	Redesigned job rotati and recruited for emp
				Promote educational and training opportunities that support personal and professional growth	Offered courses on be and building fieldwork on human rights, and
				Encourage a work-life balance	Expanded and made held company-wide n
				Strengthen communication	Conducted employee newsletter, and organ by a team of junior en
				Promote safety and health awareness	Implemented safety a and promoted mental and other means
		Partners Enhance satisfaction	19P	Promote co-existence and co-prosperity	Adapted to global bus of suppliers
		Shareholders Enhance satisfaction	20 P	Proactive information disclosure	Disclosed information and began publishing
		<b>Society</b> Help make local communities a better place	21P	Support development of the next generation	Dispatched speakers organized onsite sciel made scholarship dor
				Support sports and cultural activities	Sponsored Kyoto Sar the Kyoto Marathon, and hosted site visits
Corporate Management	<u>.</u>	Fair and Transparent Corporate Management	22 P	Sound compliance practices	Requested Area Com and offer guidance, h through the company
				Sound risk management practices	Developed a safety cl and built and modified
				Sound information security measures	Revised guidelines for and began preparatio
The Environment	<u>*</u>	Environmental Initiatives	₿Р	Develop and supply environmentally conscious products	Expanded lineup of p promoted the diesel p
				Implement activities to reduce carbon footprint	Reduced specific ene by installing energy ef
				Implement green procurement	Performed inspections of hexavalent chromiu
				Support environmental protection activities	Supported the activiti took part in clean-up

#### Fiscal 2012 results

f quality data, held intermediate course on quality control and ugh small group activities

wsletter "Techno-Letter," set up toll free hotline 24-hours a day, gineering, and hosted the customer training at the Techno Academy

ion system, hosted plant tours for persons with disabilities, oloyees outside of Japan

uilding design capabilities, core technologies, capabilities, held training programs for mid-career hires and expanded human resource development opportunities

it easier to use the work-life balance support program, no overtime davs

satisfaction survey, shared information using the company ized onsite science classes for elementary school students led nployees

nd health activities in accordance with "Safety First" Guidelines, I health care through mental stress exams, self-care training,

siness trends and supported quality control improvements

in line with Medium-to-Long-Term Business Plan "VISION 2015" a fact book on the corporate website

to the Kyoto Industrial Association, nce classes for elementary school students, and nations to an elementary school in Hue, Vietnam

nga F.C. of the J-League (professional soccer) and maintained Junichiro Tanizaki's Sekison-tei heritage residence, by researchers

npliance Managers to perform checks, conduct inspections, held compliance training sessions and educated employees / newsletter, and operated the Help Line Desk

heck contact list, revised risk management system, d Business Continuity Plan (BCP)

r the company and its domestic affiliates, ons for rolling this out at overseas affiliates

ower conditioners for photovoltaic systems and particulate filter business

ergy consumption by 25% compared to fiscal 2010 fficient equipment and conserving electricity

s on products subject to REACH and prepared implementation um-free product initiative

es of the Kyoto Modelforest Association and activities held along rivers near our business sites

#### Glossary

• Area Compliance Manager: A person from each workplace who is in charge of ensuring sound compliance practices are followed. A division general manager or president of a subsidiary of affiliate is nominated for Area Compliance Manager. • Business Continuity Plan (BCP): A plan for ensuring the continuity and quick restoration of business operations during an emergency.



Providing customer-centric solutions to remain a company that is useful to and trusted by its customers



#### Life Cycle Engineering

# Delivering a trusted support system that includes onsite testing after delivery and maintenance inspections

Photovoltaic systems are garnering much attention as interest grows in renewable energy solutions. In addition, there has been a significant increase in the number of systems being built since Japan began its feed-in tariff program in July 2012.

The Nissin Electric Group has augmented its production system, and is shipping more and more products to accommodate the sharp increase in demand for power conditioners that form the heart of any photovoltaic system. After the installation of our power conditioners, our testing engineers check to see if the power conditioner meets its design specifications and set up various settings including protective functions before the final handover is made to the customer.

The Nissin Electric Group also provides an extensive offering of inspections for photovoltaic systems after they are fully operational. Based on this, we propose and perform regularly scheduled maintenance inspections for our customers. We have also established a nationwide service network (see page 5) to respond to unexpected troubles.

#### GLOBAL

#### Enhancing customers satisfaction

#### Providing products and services that meet Japan's rigorous quality requirements at all of our production sites

We actively train employees and make further improvements to quality through Kaizen activities at our overseas subsidiaries in order to ensure that all of our production sites maintain the same rigorous quality requirements as in Japan. Our goal is to deliver satisfaction, peace of mind. and reliability to our customers through quality products and after-sales services.



Quality inspection taking place at Beijing Hongda Nissin Electric Co., Ltd.

## **Customer engagement**

#### Toll free 24-hour emergency hotline for customers

We accept enquiries from our customers on any of our products over a dedicated toll free 24-hour hotline. In fiscal 2012, we set up a special team to handle a broader scope of technical enquiries following a sharp increase in our shipments of power conditioners for photovoltaic systems.



PCS support center



Site test being made on a power conditioner

A worker that travels to a customer's site to check

to see if an installed product is working correctly

according to the customer's specifications

Glossary <

Testing engineer:

#### Work-life balance

#### Acquired right to use the next-generation Kurumin certification mark

We actively help our employees to balance their professional and family lives to achieve the optimal work-life balance. In recognition of these efforts. Nissin Electric has been certified by the Ministry of Health, Labour and Welfare in August 2012 as a business that helps its employees balance work and family lives, after having met the requirements under the Act for Measures to Support the Development of the Next Generation.

Using a cooperative framework with all the group's strength to ensure employees, which support our growth and are our direct contact with society, can live a stable life and find purpose through their work



Optimizing our diverse workforce

Employee Mutual Trust

# WING-NET – a network for female employees led by female employees

In 2008, we established WING-NET based on a suggestion from female employees. Since less than 20% of our workforce is female, we felt it was important to establish a network where our female employees could engage one another regardless of workplace or job area. Today, we plan and hold WING-NET networking events at five locations across Japan. In fiscal 2012, the number of members increased from 18 to 22, and we organized lectures by female role models, received feedback about the workplace environment, and held various workshops on our products. Members have noted that all of the activities were very worthwhile, even though they involved a great deal of effort. This has created a positive cycle where members are constantly looking forward to the next activity to organize.

The Kurumin; A mark certifying corporate support for parenting

Training session for new hires

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#### Fostering job satisfaction

#### Established Human Resource Development Department to support the professional and personal growth of employees

We established the Human Resource Development Department in November 2012 based on the recognition that the growth of our employees equates to the growth of the company. This department is increasing employee development opportunities and helping to accelerate their growth through training programs that focus on building essential workplace and job skills, as well as on passing on and cultivating technical knowledge and skills





Visit to sites installed with Nissin Electric products

#### Glossary

- Act for Measures to Support the Development of the Next Generation: A Japanese law enacted in 2005
- in order to develop an environment where children can be born and raised in a safe and healthy manner as the future leaders of society.
- Role model: A person who serves as an example and whose behavior is emulated by others



Striving to accommodate our business partners in a fair and honest manner, recognizing that growing together with our business partners will help enhance customer value and our competitiveness



#### Building trust with business partners GLOBAL

# Expanding internationally and prospering together

As markets become more global, we now look at Japanese and overseas procurement as one and the same thing, and are building ongoing mutual trust with our business partners by expanding together and prospering together internationally.

Our subsidiaries in Thailand and Vietnam focus on the contract fabrication of metal components mainly ordered by Japanese companies. We help our business partners outsource a part of the production process to our overseas subsidiaries to combine cost competiveness with a superior standard of quality, which in turn results in a low cost, yet high quality component. In this sense, we are building win-win relationships through our efforts to produce parts and procure materials from the most ideal locations.



The production scene at Nissin Electric Vietnam Co., Ltd.

#### **CSR Procurement/ Green Procurement**

#### Collaboration in the supply chain

We are working to fulfill our responsibilities to society and help protect the environment in all of our business activities, from materials procurement to manufacturing and sales. Our business partners participate in briefings on our policies and also complete surveys on specific indicators.



Briefing on our procurement policy for business partners

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#### Relationship of trust with the Nissin **Electric Cooperative Association**

#### A partnership more than 60 years in the making

Since its humble beginnings in 1951 during Japan's post-war reconstruction, the Nissin Electric Cooperative Association has grown into a group of companies with technologies that can fully satisfy the diverse needs of our customers today. Going forward, we stand committed to further refining our mutual relationship of trust.



General Meeting of the Nissin Electric Cooperative Association

#### Glossary

• CSR Procurement/Green Procurement: A method of giving priority to the procurement of products and services that have less of an impact on the environment or that are free of or use less hazardous substances.

#### **Dividend policy**

(%)

#### Returning profits to shareholders using a stable and appropriate dividend

Nissin Electric recognizes one of its most important management tasks is to produce appropriate shareholder return, while also fulfilling its responsibility to shareholders to continually enhance corporate value over the mid to long term. Our commitment is to provide a stable dividend, which is determined based on our proposed payout ratio and amount of retained earnings commensurate with earnings results





#### A more open general shareholders' meeting

Shareholder Trust

# **Promoting direct engagement with shareholders**

investment decision.

TRACTAR

Nissin Electric considers general shareholders' meetings as an ideal platform for direct engagement with its shareholders, and has implemented a variety of measures geared toward these meetings to ensure that shareholders can better understand the Nissin Electric Group. First, we schedule our general shareholders' meetings to avoid dates when many other companies hold their meetings to ensure more of our shareholders can attend. We also use a large screen, and present our earnings and management policy in an easy-to-understand format. At our June 2012 general shareholders' meeting, we changed the layout of the venue to provide more space for shareholders to sit, added LCD monitors on each side of the venue and small screens in the back to complement the large screen at front to make the presentations easier to see. Since our shareholders' meetings are held at our head office and works, we decided to offer a plant tour after the end of the meeting for shareholders in attendance. In June 2012, this tour visited our new capacitor plant that came on line in the previous fiscal year and the Kyoto EB\* Center, which provides electron-beam processing services. \* EB: Electron Beam

Maintaining an appropriate dividend in line with earnings, enhancing corporate value over the mid to long term, and strengthening mutual engagement with shareholders



Plant tour held after the general shareholders' meeting

#### Pertinent information disclosure

#### We are publishing "FACT BOOK" on our corporate website

We began publishing Fact Book about Nissin Electric on our corporate website in May 2012. This Fact Book contains a summary of financial and earnings results of the past few years. It conveys information about the company to a wider audience in a more accurate and prompt manner, which is beneficial to making an informed

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#### Information disclosure/Dialogue

- Shareholder plant tours (held annually)
- Investor Relations section of website (as needed)
- Publication of To Our Shareholders in Japanese (biannually)
- Publication of Annual Report (annually)

Societal Trust

Leveraging our expertise as an electrical equipment provider, we take part in a host of community fellowship activities inside and outside of Japan to help develop the next generation and co-exist with the local community



#### Supporting youth development

## Expanding our initiatives by organizing onsite science classes in Maebashi

We began organizing onsite science classes at local elementary schools in fiscal 2010 in order to increase the number of elementary school students interested in science by utilizing our technologies. In fiscal 2012, we organized classes near Maebashi works, in addition to those held in the communities near our head office and works in Kyoto.

These onsite science classes are held for fourth graders that already learned about photovoltaic power at school and involve having everyone test drive a small solar car designed and assembled by our employees. During the class, students learn about how a solar car works and about its photovoltaic panels, battery and motor. The students are always impressed, and think it's "cool," that the car runs on the power of the sun. We believe that these onsite science classes provide an opportunity for children to spark their interest in science through experiences, while also imparting the importance of using and storing photovoltaic and other renewable energy.



Test driving a solar car during a onsite science class

Glossary <

• Partner City Agreement:

An agreement between two cities

in the fields of culture and the arts,

for fostering private sector exchange mainly

academic research and education, and business.

#### GLOBAL

#### Enhanced scholarship program

#### Playing a role in the partnership between Kyoto and Hue, Vietnam

Nissin Electric has donated scholarship funds to an Elementary School in Hue, Vietnam, through The Japanese Association of Supporting Streetchildren's Home in Vietnam (Representative: Michio Koyama) since 2007. In 2012, the City of Kyoto and the City of Hue in Vietnam concluded a Partner City Agreement. As a Kyoto-based company, we stand committed to offering further assistance to Vietnam going forward.



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#### **Community fellowship activities**

#### Ongoing involvement in clean-up activities along the Katsuragawa River watershed in Kyoto

The Katsuragawa River Clean Campaign features community-wide activities involving local governments, companies, neighborhood associations, schools and other organizations. Nissin Electric has participated in these activities every year since 2009. This year, a team of 26 comprising Nissin Electric Group employees and their families took part in the clean-up effort on February 17, 2013 despite the cold.



Partner City Agreement Signing Ceremony between Clean-up activity along the Katsuragawa River





#### Compliance

# **Expanding Help Line Desk and Training Programs**

In 2004, the Nissin Electric Group launched a Help Line Desk for employee comments and consultations regarding compliance issues in order to promote early detection as well as voluntary correction and resolution of compliance issues. Since 2007, we have strived to further augment this program by launching the Women's Help Line Desk staffed with dedicated female consultants, making it more approachable for female employees to seek consultation concerning sexual harassment.

Moreover, our Human Rights Promotion Committee works company-wide to conduct ongoing human rights education and training activities. In addition to training for new managers and new hires, we also provide training for all employees on a regular basis. In fiscal 2012, human rights training was held on the importance of being aware of human rights issues in the workplace as well as on the publication released by the Ministry of Health, Labour and Welfare called "Proposals for Prevention/Settlement of Workplace Power Harassment."

#### **CSR Promotion Structure**

#### **Promoting Group-wide activities** centered on the CSR Promotion Committee

The CSR Promotion Committee is a company-wide organization that engages in activities while exchanging information with overseas subsidiaries. The results of the committee's initiatives are reported to senior management, including board of managing directors meetings, for appropriate directions and feedback enabling the committee to conduct ongoing CSR activities.

#### Nissin Electric Group's CSR Promotion Structure



# drills and system improvements

**Risk Management** 

The Risk Management Committee is a companywide organization that serves to prevent risks before they occur and to implement measures for prompt and appropriate response in cases of emergency. The committee is involved in improving the emergency contact system for verifying the safety of employees and their families during large scale disasters, as well as conducting periodic safety training drills



Safety information communication training drill



Human rights training session held in fiscal 2012

### Strengthening the Risk Management Committee and implementing training



 Compliance: The observance of all types of rules including laws and regulations as well as social norms in all business activities. The adherence to laws and business ethics.



Committed to energy conservation and power saving through the development of environmentally concious products and services and the utilization of the environmental management system



#### **Developing environmentally concious products**

# **Compact power capacitor for energy efficient operations**

A power capacitor is an essential piece of an energy conservation system. They are widely used in power factor improvement as well as phase modification for alternate current systems, including those for general consumers, and can be applied from low-voltage to extra-high voltage circuits. Power capacitors have a long history that can be traced back to 1931 when the world's first prototype, an oil-filled (OF) capacitor (6kV/7kvar), was successfully made using OF cable technology. The first commercialized version (10kV/10kvar) was launched two years later in 1933.

The Nissin Electric Group strives to make capacitors, which have more than 80 years of history, more compact and smaller loss by developing dielectric materials and improving their manufacturing techniques. In recognition of its efforts, the Nissin Electric Co., Ltd. was honored with the 6th One Step on Electro-Technology by the Institute of Electrical Engineers of Japan. Going forward, we aim to pursue further product development and improvements.



Displayed power capacitors at showroom

#### GLOBAL

**Overseas Initiatives** 

#### Air pollutant reduction measures implemented by subsidiary in China

As part of its ISO14001 activities, Nissin Electric (Wuxi) Co., Ltd. in China installed a fume purification system inside its painting facility to filter out fumes generated during the application process in order to reduce air pollution. Going forward, we will continue to conduct business activities both in Japan and abroad with a greater awareness of the environment.

#### Management of hazardous chemical substances

#### Initiatives to recycle volatile organic compounds (VOC)

over 80% of the volatile organic compounds purchased by the Kuze and Umezu Works of Nippon ITF Inc. By reutilizing used IPA at Kuze works special wash line, and at Umezu Works regular wash line, the company has largely reduced the amount of VOCs it purchases, and improved the recycling rate.

Installation of fume purification system inside painting facility

# Isopropyl alcohol (IPA) once accounted for

Filtering of used IPA

#### Glossary

• Volatile organic compounds (VOC): A collective term for organic chemical compounds that evaporate easily under normal atmospheric conditions of temperature and pressure.

• One Step on Electro-Technology: An award program established in 2008 in commemoration of the 120th anniversary of the Instituteof Electrical Engineers of Japan that recognizes items, places, endeavors, and people that possess historical value to electrical engineering in Japan. • Demand:

Average amount of power use every 30 minutes

#### **Electricity conservation initiatives**

# Efficiently reducing power usage through visualization and load control

The central monitoring system located within our head office works includes an energy management system (EMS).

This system enables the visualization of power load inside the precincts (for the works and business offices) as well as power consumption of each works as a whole, shedding light on the pattern of power load, thereby making it possible to estimate the effect of energy conservation in the buildings.

A page with easy-to-follow commentary on the relationship between contract demand and actual demand (instantaneous maximum power) as well as a power monitoring screen showing the status of power usage in the works is published on our intranet for all employees to access, enabling appropriate voluntary efforts to help reduce peak energy loads. As a result, the peak power usage at the head office and works in fiscal 2012 was reduced by 20% in summer and 12% in winter when compared to fiscal 2010.

The result of these initiatives will be further applied in the Smart Power Supply Systems (SPSS) that is currently under development at the Maebashi works.

reducing waste

an official recognition.

ceremony was held

on October 1, where

sticker of recognition.

The sticker indicating

a seal of approval

is displayed at the

front entrance of

the head office.

we received

a certificate and

A presentation

#### GLOBAL

#### Minimizing and recycling packaging materials

#### Rationalizing packaging materials through collaboration between subsidiaries

The Instrument Transformer Div., together with Nissin Electric Wuxi Co., Ltd. in China (NEW). has begun using dedicated containers for assembly parts imported from NEW. This initiative has achieved a 70% reduction in packaging materials used to protect parts, and a 25% reduction in the number of containers needed.

Prior to implementing the change, consolidated containers were used, which required transshipment at the port and wooden crate packaging for covering the entire shipment of parts. By switching to dedicated containers, the use of wooden crates was eliminated. In addition, by disassembling a portion of the parts before packing in hopes of reducing space needed for each package, we were able to improve the load capacity of each container. Moreover, by switching the wooden base to a plywood material, we were able to increase the strength and simplify the structure, thereby reducing the amount of materials used. In addition. we successfully reduced waste generated by using the water-proof cover for transport for delivery as well (dual use)





Rationalization of packaging materials



Demand management screen

#### Initiatives to reduce waste

#### **Recognized by Kyoto as a works** with excellence in 3R activities and

The City of Kyoto started the Works with Excellent Waste Reduction and 3R Initiatives program in fiscal 2012 to recognize major business operators for their proactive efforts toward recycling and reducing industrial waste.

Of the 2,200 eligible businesses in Kyoto, 53 businesses submitted an application, while 44 businesses received the recognition.

Our company's reduction and recycling activities were recognized for their excellence and received



Certificate of Recognition

#### **Biodiversity initiatives**

#### Formulating guidelines to protect ecosystems

In recent years, the gradual loss of biodiversity due to changes seen in the global environment brings concerns about the impacts on human existence.

For this reason, the Nissin Electric Group has formulated a Biodiversity Activity Guideline to promote biodiversity conservation efforts through our business activities aimed at protecting ecosystems

As part of this initiative, we have agreed to cooperate with Kyoto Modelforest Association in promoting efforts among employees and urging employees to take part in their initiatives



Employees participating in Ashiu no mori preservation activity



#### Inputs and Outputs for Fiscal 2012



In accordance with our ISO14001-compliant environmental management system, we will strive to continually reduce our environmental impacts and improve our systems as well as prevent environmental pollution.

We will assess the impact that all of our business activities have on the environment, stipulate environmental objectives and targets, and regularly revise these objectives and targets. We will comply with all environmental laws, regulations, agreements and other accepted requirements, as well as manage our compliance with each using a voluntary set of standards.

We will prioritize the next activities that aim to reduce environmental impacts.

#### 1. Create environmentally conscious products

Environmental Initiatives

Develop products that are considerate of the environment throughout their entire life cycle, from product design to usage and disposal.

#### 2. Mitigation of climate change

- (1) Energy conservation Reduce energy usage and CO<sub>2</sub> emissions through energy conservation activities.
- (2) Control SF<sub>6</sub> emissions into the atmosphere Control the emission of electrical insulating gas (SF<sub>6</sub>) into the atmosphere. (Recovering a majority of SF6 will have a greater effect on CO<sub>2</sub> reduction owing to equipment downsizing.)

#### 3. Discharge limitation

(1) Resource conservation and recycling

Promote conservation of resources, as well as the reduction and recycling of waste for effective use of resources.

#### (2) Prevent environmental pollution

Prevent environmental pollution due to emission and leakage of volatile organic compounds (VOCs), effluent, oil, and chemical substances.





#### **Targets and results**

Target of	Fiscal 2015	Fiscal 2012				
environmental policy	Mid- to long-term environmental target	Environmental target for fiscal year	Results	Evaluation	Example of activities	
1. Create environmentally concious products	Contribute to reduction in greenhouse gas emissions for society through products and services (amount of indirect emissions) 20% reduction in CO <sub>2</sub> emissions compared to fiscal 2000	Contribute to reduction in greenhouse gas emissions for society through products and services (amount of indirect emissions) Implement measures for 20% reduction in fiscal 2015 compared to fiscal 2000	Implemented measures for 20% reduction in fiscal 2015 compared to fiscal 2000 (prepared marketing materials for expansion of high efficiency transformers, designed and commercialized smaller, lighter weight capacitor, etc.)	0	<ul> <li>Requested business partners to obtain ISO14001 certification</li> <li>Promoted the manufacturing and sales of high efficiency products</li> <li>Designed and commercialized lighter weight equipment</li> <li>Promoted sales of photovoltaic systems</li> </ul>	
2. Mitigation of climate change. (Energy conservation)	Reduce greenhouse gas emissions from business activities (amount of direct emissions) 5% reduction in energy-derived CO <sub>2</sub> emissions compared to fiscal 2010	Reduce greenhouse gas emissions from business activities (amount of direct emissions) 1% reduction in energy-derived CO <sub>2</sub> emissions compared to fiscal 2010	Reduced energy-derived CO2 emissions by 25% compared to fiscal 2010	0	<ul> <li>Turned off non-essential lighting</li> <li>Changed to high efficiency fluorescent lamps and high efficiency mercury lamps</li> <li>Strictly managed temperature of heating and cooling</li> <li>Expanded environmentally conscious driving practices</li> <li>Installed energy recovery devices</li> <li>Changed over to energy efficient transformers</li> <li>Reduced operating hours of compressors and other equipment</li> <li>Installed photovoltaic systems</li> <li>Reduced energy usage by cutting back on overtime hours</li> <li>Promoted company-wide visualization of the energy management system</li> </ul>	
3. Mitigation of climate change. (Control SF₀ emissions into the atmosphere)	Reduce greenhouse gas emissions from business activities (amount of direct emissions) Keep ratio of SF6 gas airborne emissions at less than 2.0%	Reduce greenhouse gas emissions from business activities (amount of direct emissions) Keep ratio of SF6 gas airborne emissions at less than 2.0%	Ratio of SF $_{\rm 6}$ gas airborne emissions was 1.2%	0	<ul> <li>Improved recovery rate of SF6 by strictly managing processes involving the gas</li> <li>Installed SF6 recovery equipment</li> </ul>	
4. Discharge limitation (Resources conservation and Recycling)	Reduce volume of waste to total production by 5% compared to fiscal 2010	Reduce volume of waste to total production by 2% compared to fiscal 2010	Reduced volume of waste to total production by 2% compared to fiscal 2010	0	<ul> <li>Reduced packaging materials during import</li> <li>Encouraged bulk orders</li> <li>Reduced waste paint</li> <li>Promoted paperless documentation</li> <li>Reduced print outs through computerization</li> </ul>	
	Keep ratio of land filled waste at 1.0% or below	Keep ratio of land filled waste at 1.0% or below	Ratio of land filled waste was 1.0%	0		
5. Discharge limitation (Prevent environmental pollution)	Reduce emissions of volatile organic compounds (VOC) into the atmosphere 5% reduction compared to fiscal 2010	Reduce emissions of volatile organic compounds (VOC) into the atmosphere Create proposal of measures for 5% reduction in 2015 compared to fiscal 2010	Created proposal of measures for 5% reduction in 2015 compared to fiscal 2010 (choose alternative solvent, install electrostatic painting equipment)	0	<ul><li>Installed electrostatic painting equipment</li><li>Controlled paint coat thickness</li><li>Recycling of solvent</li></ul>	