

Environmental Report

2014



TOP MESSAGE



Encourage our activity for a brighter future for the Earth

The United Nations scientific panel on climate change recently presented its latest report on the impacts of climate change, society's vulnerability to them, and the capacity and limits to adapt to the changing climate. The Intergovernmental Panel on Climate Change (IPCC) reported that it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th Century, and also predicted the result if the warming continues on its present course. In the worst-case scenario, temperatures would climb 4.8°C and sea levels would rise 82 cm by the end of this century.

I recognize that the future environment of the Earth depends on the actions of each person without exception.

SMK has long endeavored to find harmony between corporate growth and environmental preservation. We have accepted this as one of our greatest challenges, and this philosophy will remain true going forward.

We revised the SMK Group's Charter for Corporate Behavior and Code of Conduct in April of this year. The revision urges each employee to take action consciously on several priorities: comply with laws, minimize our environmental impact, and reduce green-house gases and waste emissions. Certainly, reducing waste at our overseas works, by recycling materials and waste packaging, is a positive result of working toward these goals.

Remarkably, the photovoltaic generating capacity during 2013 in Japan had more than doubled since 2012. Meanwhile, SMK seeks to expand our business in this renewable energy market. Actually, the photovoltaic connector currently sold in this market grew into one of the most important products of SMK.

Now, we are constructing our photovoltaic power plant on the site of the Ibaraki works. This connector is being adopted in the solar cells used for our solar power plant. Our power operation will start with 330 MWh of electricity per year from July of 2014. This electricity volume is equivalent to the average annual consumption of 100 homes.

Such activities have borne fruit. Nikkei Inc. has announced the results of the corporate rankings for the Environmental Management Survey in January 2014, and SMK was awarded highest order in that survey's history. We were encouraged at this result. However, we also have to recognize that the remaining issues should be improved further.

Step by step, SMK continues developing steadily and earnestly. Please look forward to our future as an eco-friendly company.

July 2014

President and
Chief Operating Officer

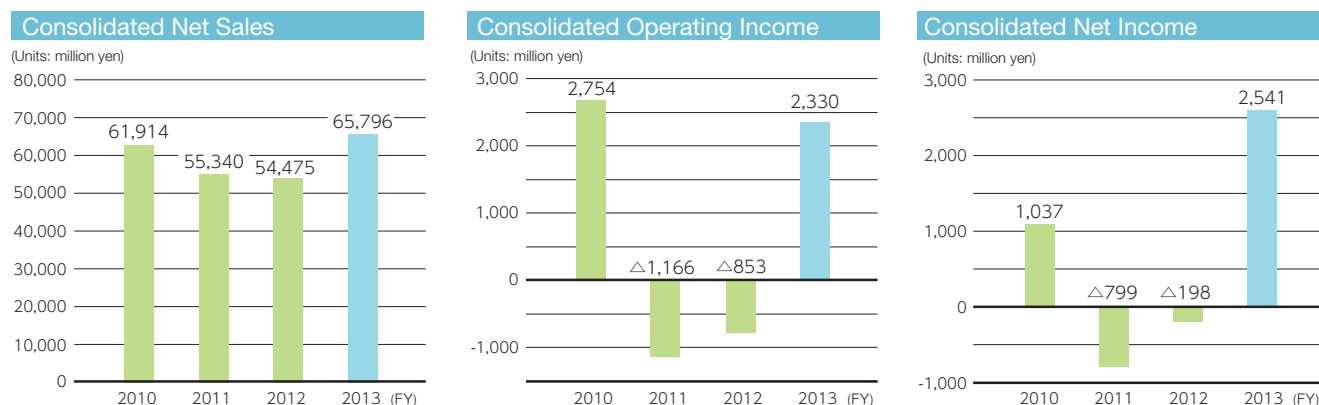
Yasumitsu Ikeda

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Corporate Profile (as of March 31, 2014)

Name	SMK CORPORATION
Established	April 1925
Registered	January 15, 1929
Primary Businesses	Manufacturing and sales of electronic components for use in electrical equipment, communications equipment, electronic equipment, industrial machinery, IT equipment and other applications.
Capital	7,996 million yen
Number of Employees	6,470 (in the Group)
Head office	5-5, Togoshi 6-chome, Shinagawa-ku, Tokyo 142-8511, Japan TEL: +81-3-3785-1111 FAX: +81-3-3785-1878 URL: http://www.smk.co.jp/
Major Products	Ccoaxial connectors / FPC connectors / Board-to-board connectors / Jacks / Remote controls / Switches / Wireless modules / Camera modules / Resistive touch panels / Capacitive touch panels / Optical touch panels



About This Report

Reporting period	FY2013 (April 1, 2013 - March 31, 2014)
Scope of calculations	SMK Corporation (10 sites in Japan) and consolidated subsidiaries (two in Japan and 17 overseas)
CO₂ emissions	Conversion coefficients are subject to the standards of the Federation of Electric Power Companies of Japan for domestic sites, and the GHG Protocol for overseas sites.
Access to corporate information	Our website discloses data profiling our company, IR information, product descriptions, and past environmental reports. http://www.smk.co.jp/

Contact : Environmental Protection Department, SMK Corporation TEL : +81-3-3785-5058 FAX : +81-3-3785-0517

Environmental Management

SMK Environmental Charter

1. Basic Philosophy

The SMK Group pursues environmental preservation as well as economic development, by integrating its current technological strengths and creating advanced technology. As a good corporate citizen, every one of us will contribute to the promotion of sustainable global development.

2. Action Guidelines

- (1) Develop environmentally friendly products
- (2) Reduce waste by using everything to its fullest extent
- (3) Preserve natural resources and saving of energy
- (4) Encourage 3R (reduce, reuse and recycle)
- (5) Realize waste-free procurement and manufacturing

Organization to Promote Environmental Preservation

In SMK, the Group policies, targets, and initiatives related to environmental preservation are deliberated upon and determined by the Corporate Environmental Preservation Committee, which is chaired by the Vice President of the Environment Division. Major items are subject to deliberation and determination at the Executive Officer's Meeting. Upon determination, they are deployed at all Japan and overseas works. At each business site, the local Environmental Preservation Committee decides local policies, targets, and initiatives in accordance with the Group policies, targets, and initiatives taking locally specific issues into consideration and puts them into practice.

Environmental Management Systems

SMK's environmental management systems are in accordance with ISO 14001, the international standard for EMS.

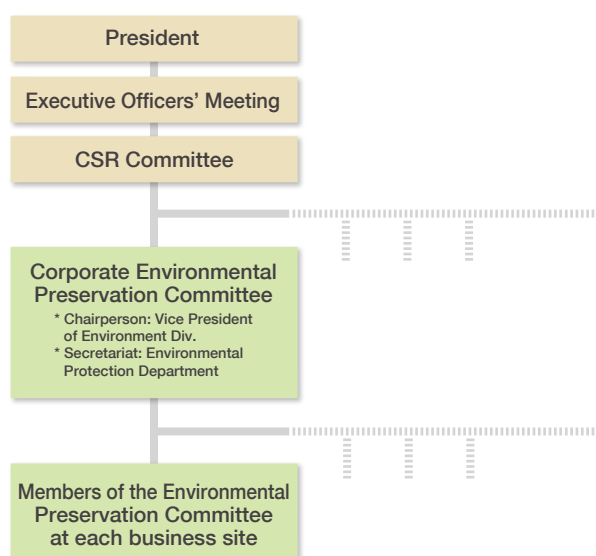
We have obtained ISO 14001 certification for all of our Japan sites and overseas works. Since fiscal 2007, in addition to individual activities at each site, we have been setting targets and themes to be shared by all members of the SMK Group, reinforcing linkage among our sites, and working to strengthen group-wide systemic arrangements.

SMK's environmental preservation activities are not limited to our Group. The Green Procurement Guidelines that we published in 2004 also make demands on our suppliers. Specifically, we request our suppliers to pledge not to use any environmentally hazardous substances prohibited by SMK, and to put in place ISO 14001-based systems. We visit suppliers who have not obtained ISO 14001 certification to check on the status of their environmental preservation activities, and to suggest any necessary improvements.



Presented at the suppliers meeting about New SMK Green Procurement Guidelines (SMK Shenzhen)

Organizational Structure for Environmental Preservation



Environmental Education

SMK implements environmental education by levels of employees throughout the Group, and as a part of the professional education curriculums. In addition, each business site makes its own annual education plans.

We also encourage our employees to take the Certification Test for Environmental Specialists (Eco Test) administered by the Tokyo Chamber of Commerce and Industry. We have set a goal of having 5% of the employees in each division obtain certification, and every year since the first test in 2006, we have recruited candidates, purchased textbooks, and provided assistance with the burden of exam fees.



Training of internal (SMK Toyama)

Environmental Preservation Activities

All of SMK's Japan and overseas works have formulated targets for environmental preservation activities, and are pushing ahead with realization of improvements. The table below presents the actual results of SMK's major activities in fiscal 2013, as well as targets for this fiscal year.

Preventing Global Warming

To reduce CO₂ emissions, SMK has managed and replaced air-conditioning systems to maximize conservation. We have pursued efficiencies in production processes in our production works. As a result, both CO₂ emissions per unit of production value and total CO₂ emissions have fallen by even more than planned.

Going forward, a new challenge is to achieve visual control of energy usage as part of energy management to assure even greater savings.

Preserving Biodiversity

SMK added preserving biodiversity as a goal of our Green Procurement Guidelines. We revised the guidelines to encourage our suppliers to be aware of biodiversity protection.

Effective Use of Resources

Programs aimed at eliminating MUDA in manufacturing processes led to much-larger-than-planned reductions in our

industrial waste discharge per unit of production value and total industrial waste discharge. We also met our target for landfill waste reduction.

Effective Responses for the Management of Environment-related Substances

Programs aimed at eliminating MUDA in manufacturing processes led to much-larger-than-planned reductions in our industrial waste discharge per unit of production value and total industrial waste discharge. We also met our target for landfill waste reduction.

Promote More Eco-Friendly Design Approach

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Nature of initiative	FY2013		Self-assessment
	Target	Achievement	
Preventing global warming	CO ₂ emissions per unit of production value*1: 8% reduction relative to FY2012 Target: 0.57 t-CO ₂ /million yen	21% increase 0.49 t-CO ₂ /million yen	A
	Total CO ₂ emissions: 5% reduction relative to FY2012 Target: 33,607 t-CO ₂	6% increase 30,163 t	A
	Review and introduction of energy management systems	Try to introduce the Energy Monitoring System	B
	Review of SMK standards for LCA (including carbon footprint)	Obtaining and analyzing information on trends in the industry (including Scope 3).	C
Preserving biodiversity	Review of activities related to purchasing with preservation of biological diversity in mind	Revise SMK Green Procurement Guidelines	B
Effective use of resources	Industrial waste discharge per unit of production value*2: 10% reduction relative to FY2012 Target: 0.028 t/million yen	29% increase 0.022 t-CO ₂ /million yen	A
	Total industrial waste discharge amount: 1% increase relative to FY2012 Target: 1,624 t	17% decrease 1,336 t	A
	Landfill waste amount: 3% reduction relative to FY2012 Target: 110 t	3% decrease 110 t	A
Effective responses for the management of environment-related substances	Register parts composition information, launch a system to deal with the EU-REACH regulations	Implement management system	A
Promote more Eco-friendly design approach	Enhancement of product assessments	Consider integration of product assessments and eco-product management system.	C

*1: CO₂ emissions per unit of production value = CO₂ emissions divided by production value

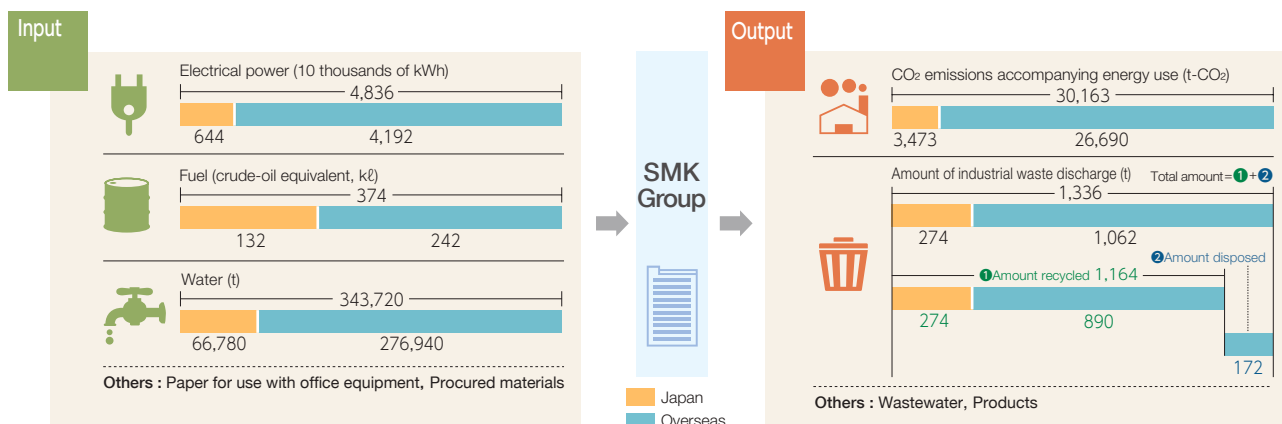
*2: Industrial waste discharge per unit of production value = industrial waste discharge divided by production value

Self-assessment

A: attained B: insufficiently-attained C: not attained

Material Balance

At SMK, we work to track, analyze, and reduce the material balance (environmental footprint) of each process throughout the Group, from product design and development to manufacture and sales.



Energy and Resource Saving Results

SMK positions responses to global warming as an important management agenda, and is working to improve energy efficiency.

We also aim to reduce industrial waste discharges and achieve zero emissions (i.e., zero landfill waste) to use our resources more efficiently.

Energy-Saving Results

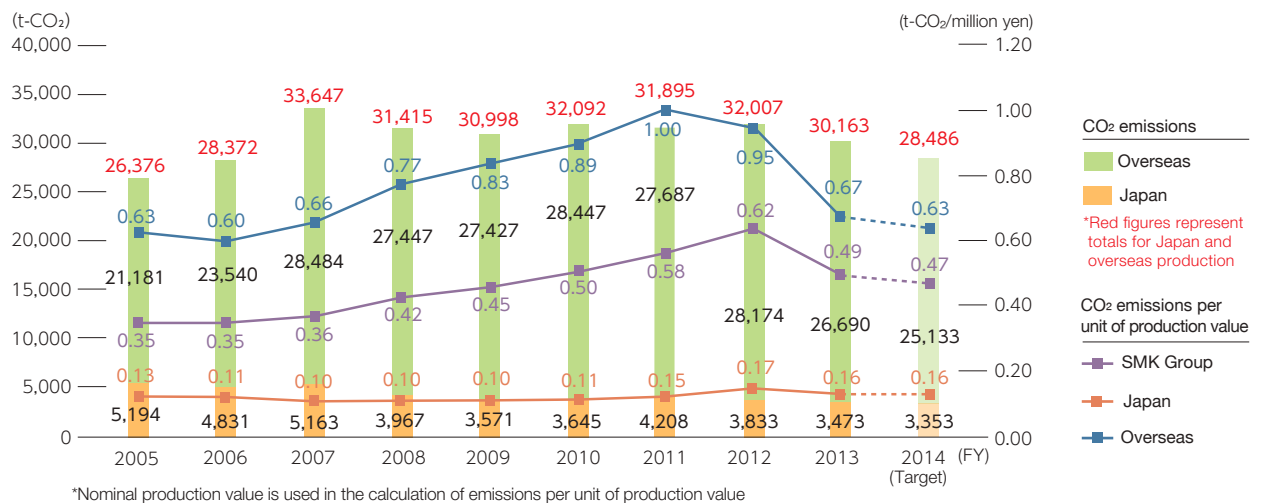
- ◎ In fiscal 2013, SMK reduced both CO₂ emissions per unit of nominal production value (79% against the previous fiscal year) and total CO₂ emissions (94% against the previous fiscal year), as indicated in "Environmental Preservation Activities."
- ◎ We have been working to progressively increase our level of in-house processing of parts (molding, stamping, etc.) rather than outsourcing since our base year (FY2005) towards the achievement of greater efficiency through integrated manufacturing.
- ◎ We evaluate our energy efficiency using actual CO₂ emissions (which exclude the increase due to bringing production in-house) and actual production value (which minimizes the effect of changes in commodity prices and exchange rates).

(See graphs below.)

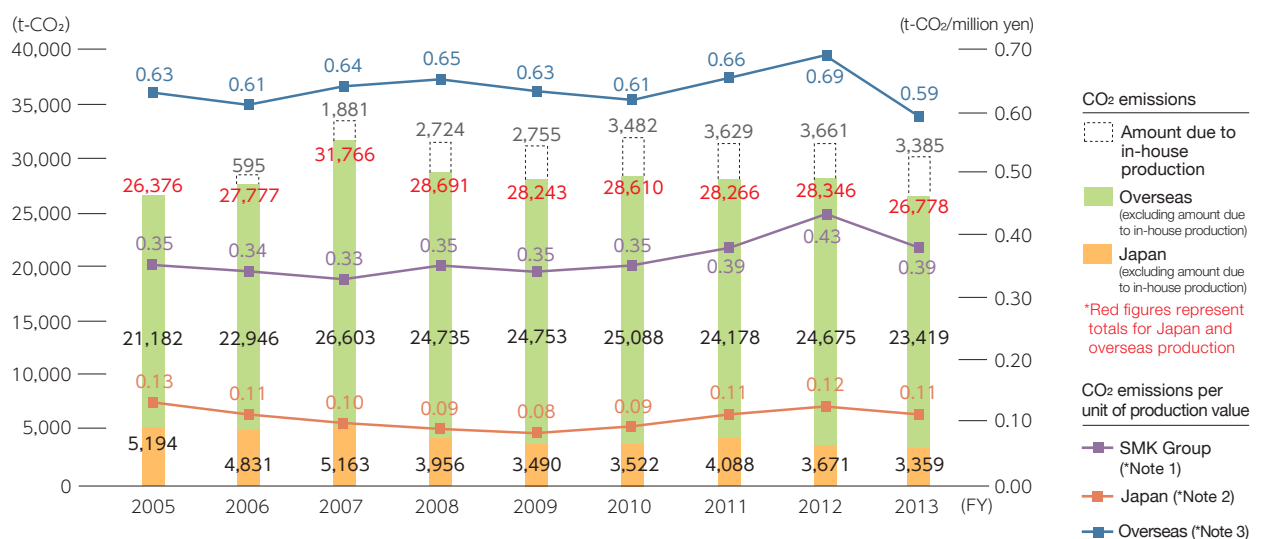
SMK's energy efficiency is improving, considering that the relative share of touch panels, which consume a rather large amount of energy within our production categories, has increased.

	Year on Year	
	Japan	Overall SMK Group
CO ₂ emissions per unit of production value (nominal production value)	94%	79%
CO ₂ emissions	91%	94%

Trends in CO₂ emissions and CO₂ emissions per unit of nominal production value



Trends in CO₂ emissions and CO₂ emissions per unit of actual production value



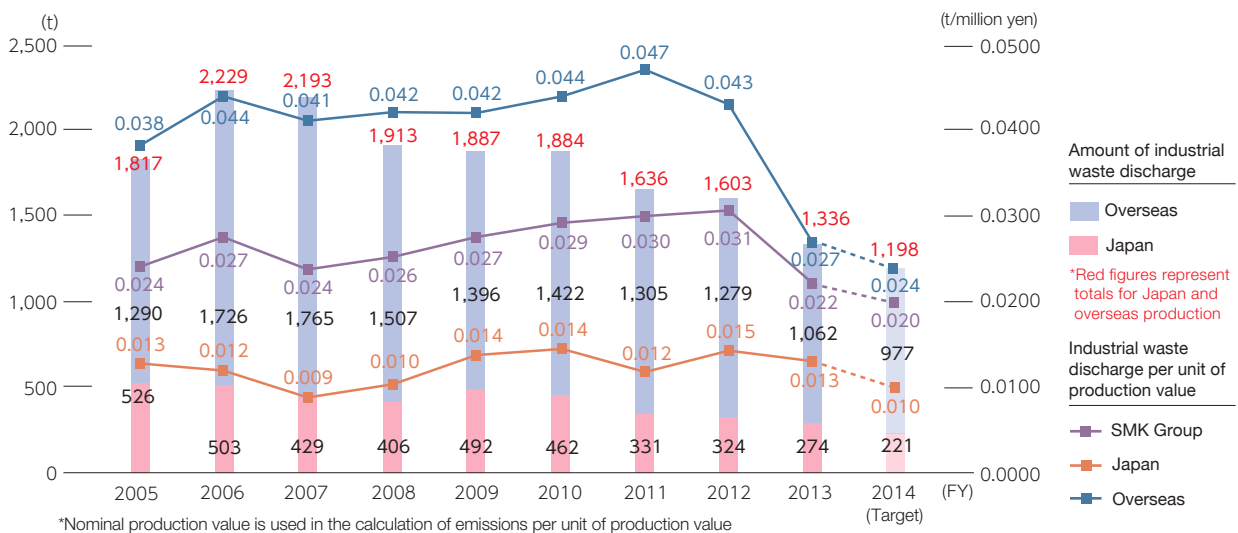
Resource-saving Results

©SMK has reduced industrial waste discharge as measured by two indicators: industrial waste per unit of production value (71% of the previous fiscal year) and amount of industrial waste discharge (83% of the previous fiscal year). The reason is discussed in "Environmental Preservation Activities."

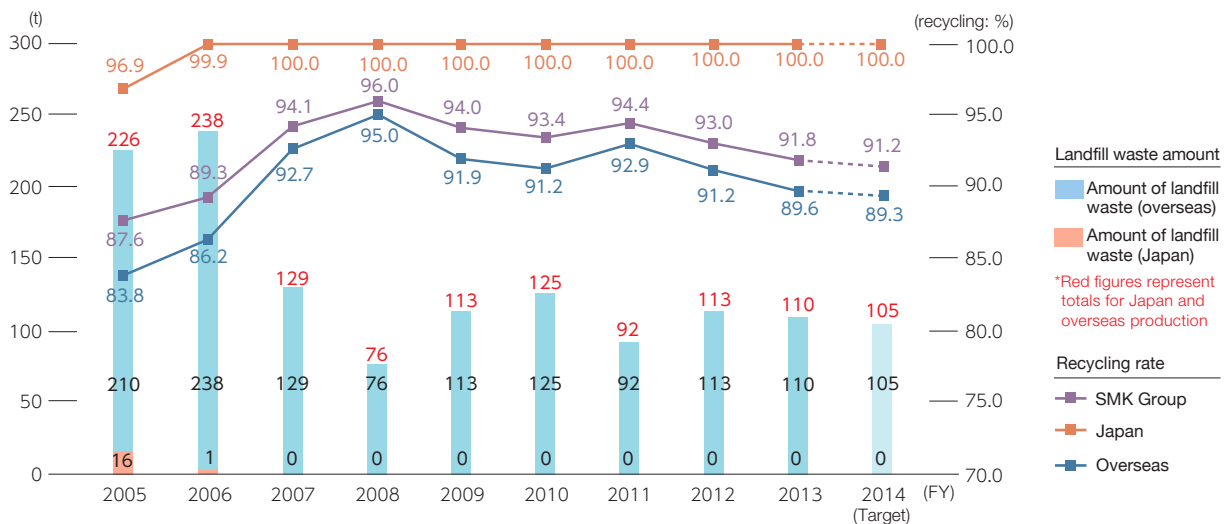
©The volume of landfill waste has slightly decreased (97% of the previous year), as a result of the effects of the glass-waste recycling carried out from the 2012 fiscal year in the overseas works.

	Year on Year	
	Japan	Overall SMK Group
Industrial waste discharge per unit of production value (nominal production value)	87%	71%
Overall industrial waste discharge amount	85%	83%
Recycling amount	87%	82%
Landfill waste amount	—	97%

Amount of industrial waste discharge



Amount of landfill waste and recycling rate



Environmental Accounting

Environmental Preservation Costs and Benefits

(Units: million yen)

Category	Major Activities	Environmental Preservation Costs				Economic Benefits Accrued		Environmental Preservation Benefits (Quantity)	
		Investments		Expenses		Amount	YoY	Consumption/Output Savings	YoY
		Amount	YoY	Amount	YoY				
Business area costs	Pollution prevention	53.6	—	23.2	111%	0	—	Use of Environmentally Hazardous Substances: -21.4 t	—
	Global environmental preservation	10.5	10%	44.9	119%	3.9	49%	CO ₂ emissions per unit of production value: -0.127 t-CO ₂ /million yen	—
	Resource circulation	0	—	25.7	95%	51.5	53%	Landfill waste amount: 2.0 t Industrial waste discharge per unit of production value: 0.0092 t /million yen	—
	Sub-total	—	64.1	61%	93.8	110%	55.4	53%	—
Upstream/downstream	Green procurement	0	—	0.2	160%	0	—	—	—
Administration	Elimination of environmentally hazardous substances / Environmental management education, activities for the achievement of certification, etc.	3.8	—	183.1	110%	0	—	—	—
R&D	Development of environmentally friendly products	0	—	21.4	63%	0	—	—	—
Social activity	Initiatives to expand green areas at works	0	—	6.2	74%	0	—	—	—
Environmental remediation	—	0	—	0	—	0	—	—	—
Total	—	67.9	65%	304.7	103%	59.0	56%	—	—

Accounting Procedure:

SMK's environmental accounting practices adhere to the Environmental Accounting Guidelines 2005 published by Japanese Ministry of the Environment.

■ Environmental Preservation Costs

In terms of our environmental preservation costs in fiscal 2013, investment declined while expenses stayed about the same as the previous year.

In our major investment, we replaced touch panel etching equipment with more eco-friendly models.

■ Economic Benefits

The economic benefits accrued in fiscal 2013 declined from the previous year. This is because our production process improvements allowed less waste, which reduced revenue from salvage sales.

■ Environmental Preservation Benefits

Under environmental preservation benefits, only environmentally hazardous substances increased.

The reason is the increased use of etching process chemicals as production of touch panels has risen.

TOPICS

New SMK Photovoltaic Power Plant

SMK started constructing a new 320 kW photovoltaic power plant from May of 2014 at our IBARAKI site in KITAIBARAKI City, IBARAKI Prefecture.

We expect to begin operation from the end of July, 2014.

Power generation will begin with 330 MWh of electricity per year in July, 2014.

This electricity volume is equivalent to the average annual consumption of 100 homes.

Overview of New Plant

Site area :
around 4,000 Square meter
Output : 320KW
Annual Power Consumption :
330MWh

Environmental benefit

CO₂ emissions reduction (estimated):
about 105 t-CO₂/year
From JPEA regulation,
Provisional Conversion
Constant
(JPEA : JAPAN
PHOTOVOLTAIC ENERGY
ASSOCIATION)



Using SMK photovoltaic connectors between photovoltaic power cells
With sales up 50% over the previous year, this is one of our major eco products.
(See p.9)

Energy and Resource Saving Activities

Social contribution activity is promoted through recycling of materials for packing.

SMK Electronics (Phils.) Corporation

When SMK Philippines stepped up production of touch panels (its major product), it also created more waste in the form of wooden boxes used to import glass materials. As they considered how to use these resources, the company got the idea to turn wood from used glass import boxes into school chairs and paper used for glass protective sheets into drawing books. SMK Philippines then donated the recycled goods to nearby elementary schools.

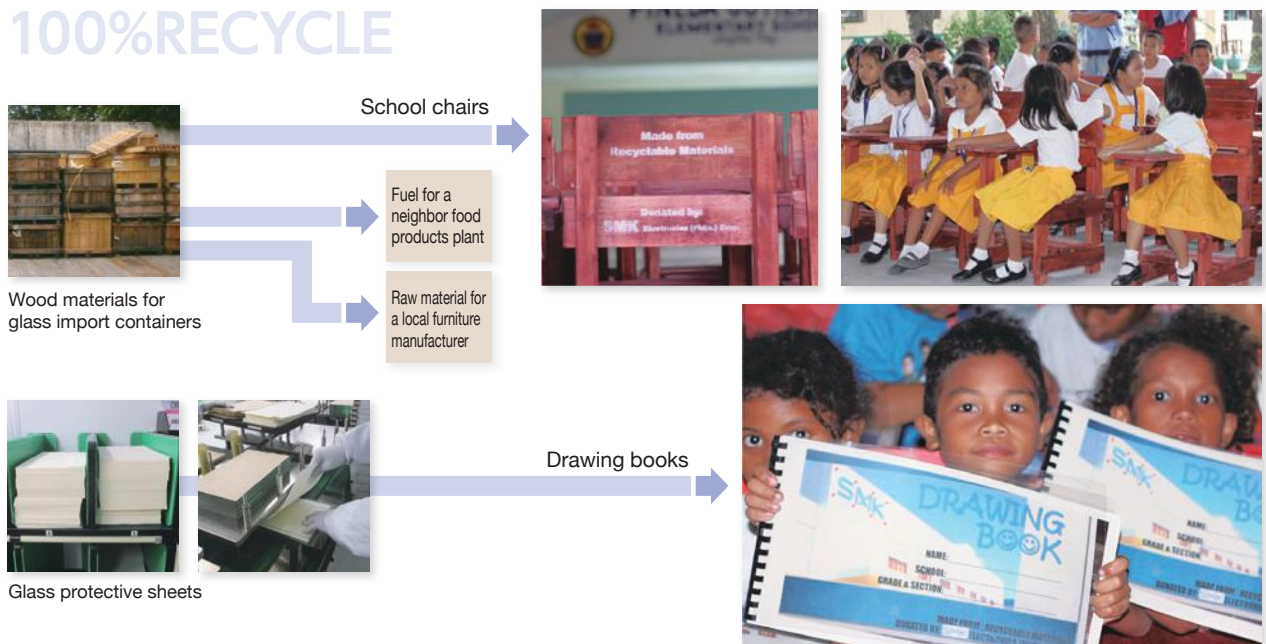
Their initiative not only helps preserve our environmental activity, but also helps underprivileged children in the

Philippines. We were also rewarded by seeing their shining smiles when they received small presents from SMK Philippines.

Moreover, 100% of the wood materials for glass import containers are recycled and used, for example, as fuel for a neighboring food products plant and donated as raw material to a local furniture manufacturer.

SMK Philippines is determined to continue its environmental preservation activities and community contributions.

100% RECYCLE



Hosted the governmental environmental activity program of the state of Baja California.

SMK Electronica S. A. de C. V.

The government of the state of Baja California, where SMK Mexico's plant is located, honored the company for hosting the environmental activities program known as PLAC in fiscal 2013. The program seeks to promote environmental awareness at businesses and to generate profits for them through environmental preservation projects that tie in with business activities.

SMK Mexico hosted an event at which the government research institute PROFEPA offered a seminar and representative businesses reported on their projects. At the closing ceremony, in which more than 100 businesses took part, organizers honored SMK Mexico and three other businesses for making significant environmental improvements. The company's leadership also got a round of applause for the major role it played in running the event.



Installed power control devices for the compressor used in the air-conditioning system

SMK Electronics (Shenzhen) Co., Ltd.

In December 2013, SMK Shenzhen added equipment to stop and control air conditioner compressors without causing uncomfortable room temperatures. While inverter units are the most common way of conserving energy in air conditioners, the new control devices can save energy even without one. The company finished installing the new control devices in its 15 air conditioners only one day.

SMK Shenzhen expects to reduce electric power consumption 4.5% and cut CO₂ emissions by 150 t-CO₂ annually. Looking forward, we will further reduce CO₂ emissions with more improvement of the water-chillers and so forth.



Creation of Environmentally Friendly Products

Connector for Photovoltaic Modules

These connectors link photovoltaic modules with cables. The original multi-point contact structure assures and excellent contact performance. The original water-tightness structure (top and bottom cover system) facilitates cable waterproofing with easy operation without tools. The connectors have UL and TÜV certifications. Available in a wide variety of configurations, such as splitters.



Connector for LED Lighting (COB type) LT-10/LT-11 Series

Connector for LED lighting, a type of illumination that offers energy-saving benefits. SMK developed a socket for the COBLED package and added it to its product inventory.

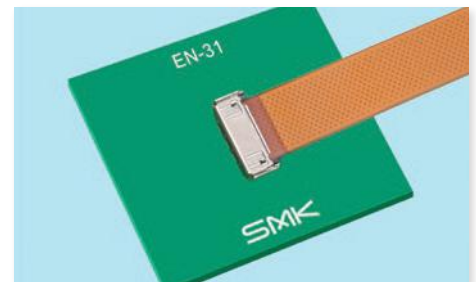
This product is composed of two parts, a top cover and a bottom cover, which radiate heat from the LED into a heat sink. This structure contributes to overall improvements in ease of assembly and in reliability.



FPC connectors for High-Speed Transmission: EN-31 Series

0.3-mm pitch FPC connectors compatible with products such as digital home electronic equipment and IT devices in which signal transmission speeds are increasing.

The connectors are compatible with the MIPI / D-PHY standard for high-speed interfaces, and are ideally suited to realizing high-speed transmission in mobile devices. The product design and the material selection take RoHS Directive and halogen-free into account.



Micro USB Connectors (Spring Contact Terminal)

Micro USB connectors for use in smart phones, mobile telephones, etc.

The spring terminals allow these to be pushed to the PWB without using solders. The product design and the material selection take RoHS Directive and halogen-free into account.



Wireless Modules for Remote Control Unit

This is the ZigBee®RF4CE Module used in wireless remote control unit. It offers a 42% reduction in power consumption and a 15% reduction in size without sacrificing any functions.

This contributes to a reduction in the frequency of battery replacements and allows a smaller product.



Rubber push switch (Single-key) series

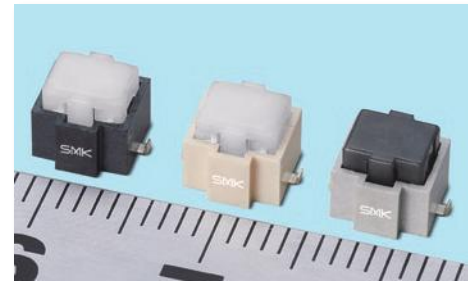
This switch series has the best performance for use in equipment of the automotive market.

As the increased its demand, SMK is expanding production capability at multiple production bases in the major demand countries.

This measure mitigates the environmental impact of logistics.

In addition, this model switch is the most eco-friendly product through review of our manufacturing equipment, and we increased production efficiency and cut CO₂ emissions 40%.

SMK will continue to develop products with highest process efficiency for reduced environmental impact.



Resistive touch panel with a proximity sensing function

By giving our normal Resistive Touch Panels the function of detecting when a hand is close by, we have opened the door to many variegated input functions in your products.

For example, touch panels could reduce energy consumption by putting the LCD into standby mode when they have not been used for a specified period of time, and waking it up when your hand is brought close.

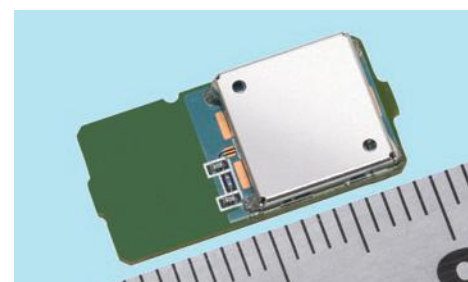
SMK will continue to propose applications, such as in the office equipment market.



Wireless Modules

Various wireless modules installed power self-management software to reduce energy consumption.

Especially, our new model BTS01 Bluetooth® smart module not only saves energy, but its smaller and lighter form simultaneously saves resources.





SMIK CORPORATION

Published in July 2014

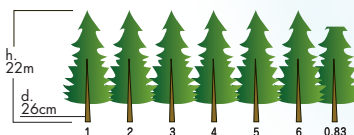
The paper used in this report is FSC mixed source certified, produced using wood from FSC certified forests and managed forests. The report was printed using a vegetable ink derived almost entirely from plant sources, and contains no volatile organic compounds (VOCs). It was printed using the Minus Carbon Printing system, in which aluminum plates are reused.



SMK printed this Environmental report by reusing 6.24 kg of aluminum plates in the printing process, thus reducing CO₂ emissions by 95.24 kg.
reducing CO₂ emissions by 95.24 kg.
 Japan Smart Energy Co., Ltd. examined this numerical value and confirmed it.



This article is printed using environment - friendly process qualified as GOLD PLUS status by E3PA.
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95.24kg is same as quantity of CO₂ which a 6.83 cedar of 50 years old (h.=22m/d.=26cm) absorbs for one year.
(source:forestry report 1997, Forestry Agency of Japan)