

Happiness+

SK Group Environmental Report 2010

About this Report

SK is practicing low-carbon green management to contribute to the society's sustainable development and happiness through its eco-friendly management activities. This report is the first Group-wide environmental report published by SK and has been prepared to share SK's efforts and the outcomes for low-carbon green management with various stakeholders, through which SK aims to present its will and vision for the green management that it strives for.

Reporting Period

This report covers the period from January 1, 2009 to December 31, 2009. Quantitative information of key environmental performance indicators includes data from the past three years. The best practices reflected in this report are parts of the achievement from before 2009 and 2010. In the future, SK plans to publish the Group Environmental Report every other year.

Reporting Scope

Contents of this report cover domestic sites of the 12 affiliates that participate in SK Group Environment and R&D Committee; this report also covers best practices of affiliates and subsidiaries other than the 12 participating affiliates.

* The 12 participating affiliates : SK holdings, SK energy, SK chemicals, SKC, SK E&S, SK gas, SK telecom, SK C&C, SK telesys, SK networks, SK E&C, K-Power

Reporting Guidelines

This report has been prepared based on G3 Guideline for sustainability reporting from GRI (Global Reporting Initiative) and Environmental Report Guideline from Ministry of Environment.

Third-Party Review

This report has been reviewed by external environmental management expert to obtain credibility. (Please refer to p.59-61 for further information.)

Contact Information

For any questions or opinions about SK Group Environmental Report 2010, please contact us via the information provided below.

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“SK strives to create a future world where both the environment and people are happy”

The ultimate value that SK seeks to achieve through its management activities is happiness of all stakeholders. This happiness must be sustainable over a long term and not temporary. To achieve this all the elements of the environment including the earth, water, and air that we breathe and live must be healthy and sustainable.

SK's environmental management refers to activities that increase the natural value of the environment.

The direction of SK's environmental management is 'to create new environmental values' through the development of technologies for efficient use of environmental resources and related projects. SK thrives to go beyond the level of 'environmental clean-up' activities that simply focuses on the pollution.

Under this backdrop, SK aims to provide solution for environmental problems through innovation of green technology and expansion of green businesses, as without changes in the technology and the business itself, any other efforts that SK make will end up being a mere temporary action.

In 2010, SK has declared the '3E' strategy, which involves securing new sources of energy (Energy), building a smart environment (Environment), and promoting technologies for industrial innovation (Enabler). The 3E strategy is a driver for its new growth and has been enthusiastically promulgated across the entire business.

In addition, SK has organized Environment and R&D Committee in which all major affiliate companies are involved to encourage Group-level environmental management. All the affiliate companies have also individually set up separate low-carbon management systems that recognize unique characteristics of each business, thereby conducting 'Independent Yet United' environmental management program to deal with future environmental challenges.

As a result of continuous research and investment, SK has so far attained tangible achievements in areas of lithium-ion batteries and renewable energies that will lead the future era of green energy. Building on the experience and know-how accumulated in these areas, SK is planning to lead the discussion regarding renewable energy with prominent global companies at the G20 Business Summit, which takes place in Seoul in November 2010.


SK will not limit itself with the current achievements and will continue to promote the sustainable environmental management by firmly establishing the virtuous cycle of growth and investment in technology.

This is the first environmental reporting initiative from SK, which contains the ongoing efforts of all members of SK striving toward a sustainable future. This report is a green record that reflects and summarizes SK's environmental management activities, as well as a guideline to explore better means for environmental management. We believe that this report will help SK's environmental management program to leap a step further.

We appreciate your ongoing interest and support for SK's efforts to create sustainable happiness for all its stakeholders.

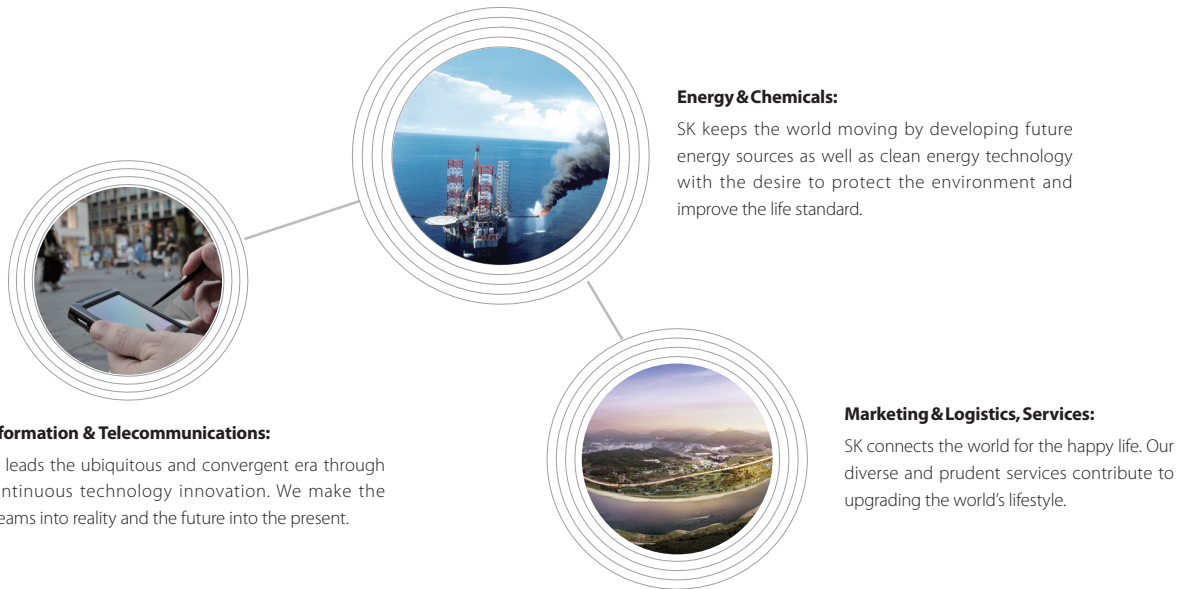
October 2010

Chairman & CEO
Chey Tae-won



Company Profile

With energy & chemicals and information & telecommunications as its main areas of strength, SK has evolved to become a leading company in Korea whose value is globally recognized and today its business areas has expanded to marketing & logistics, services and even biotechnology. Since founded in 1953, SK has walked on a path of innovation for happiness of all its clients and stakeholders; with the settlement of the holding company system introduced in 2007 as well as the management led by the Board of Directors, SK established transparent and efficient governance and advanced management system.



■ SKMS Framework



SK continues to evolve and improve to become a company with strong and righteous corporate culture, based on the SK Management System (SKMS), the company's management philosophy that promotes the speed and flexibility of management activities. SK is preparing for a new leap such as accelerated globalization with the focus on China, technology-driven green growth, advancement of growing businesses, and improved productivity of telecommunication business mainly targeting corporate and industrial sectors.

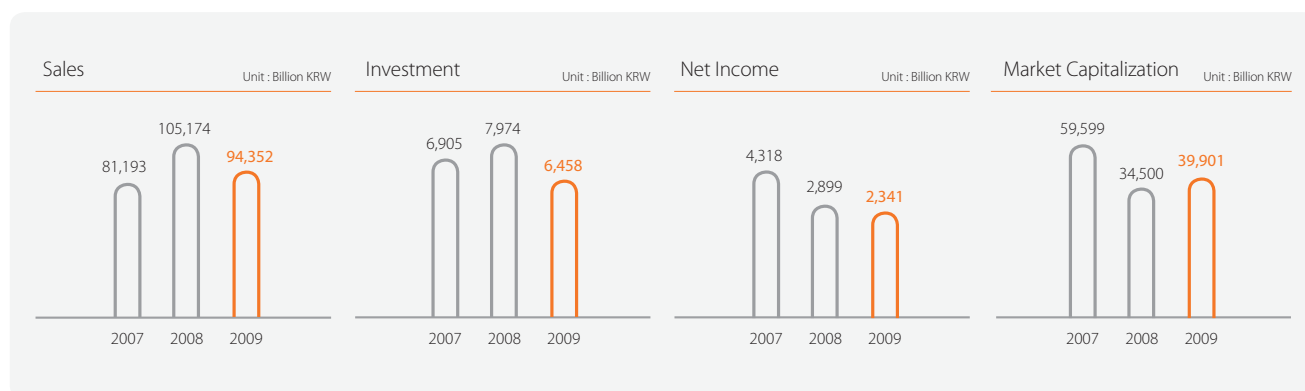
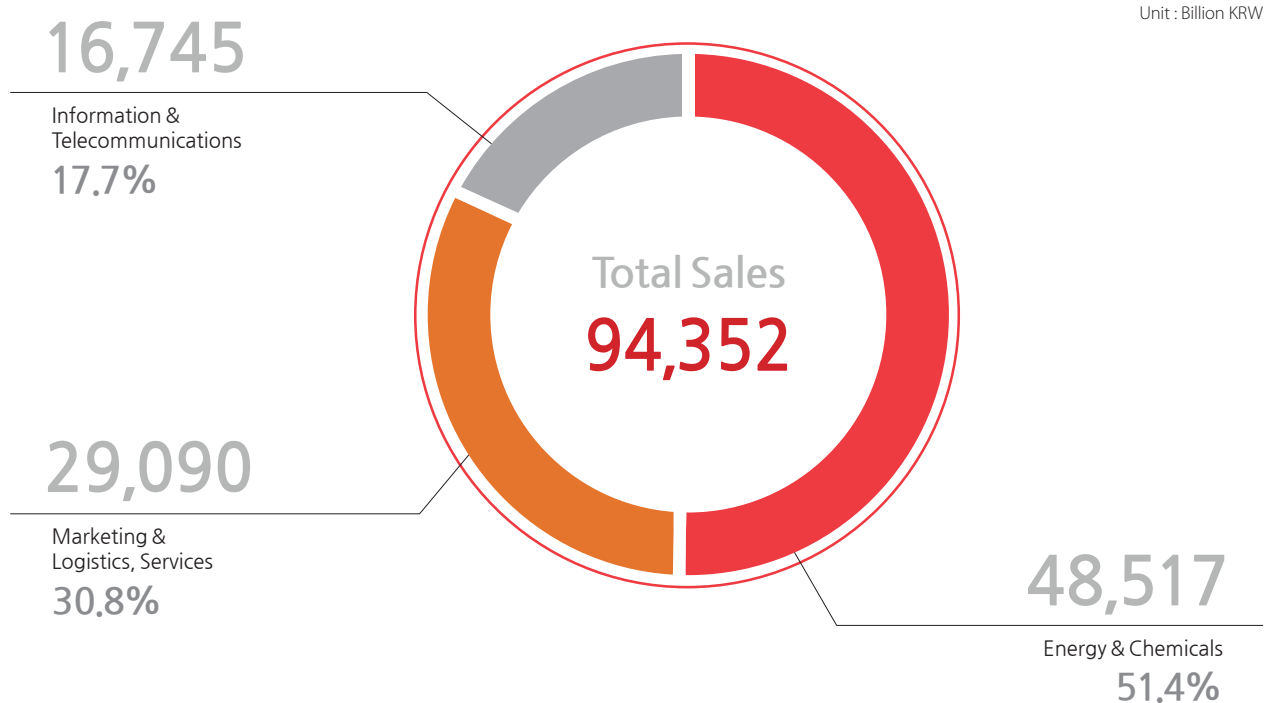
SK Management System (SKMS) – SK's management philosophy

SKMS is a management control system that all members of the organization agree upon and share, which defines important management theories and systematically puts the contents in order. Established in 1979, SKMS has been the decision-making standard for all the management activities of the companies and all employees' performance as well as a foundation for the development of corporate culture. In principle, SKMS is composed of SK's management philosophy and the methodologies of applying it in the practical situation; SK seeks to promote 'Pursuing SUPEX via Human-Oriented Management'.

※ SUPEX describes specifically how to execute SKMS and refers to 'Super Excellent Level', which means absolutely the highest level achievable with human capabilities. The challenges of the members of SK continue and positive results are being achieved in many occasions so far, believing that 'Nothing is impossible for SK'.

Financial Highlights

In 2009, SK achieved the total sales of 94,352 trillion KRW through businesses in energy & chemicals, information & telecommunications, and marketing & logistics, services. In the future, SK will put in more efforts to achieve economic performance more efficiently.



Stakeholder Engagement and Materiality Test

Material Test Outline

Target	Internal and external stakeholders including government, shareholder/investor, academia, employees, NGO, and media
Method	Survey Research through e-mail and visitation
Contents	Materiality test in accordance with 4 sectors, 18 evaluation indicators based on GRI and Environmental Report Guideline by Ministry of Environment
Utilization Plan	Disclosure of performance indicators that are rated significant in materiality test

Internal and External Stakeholder Survey

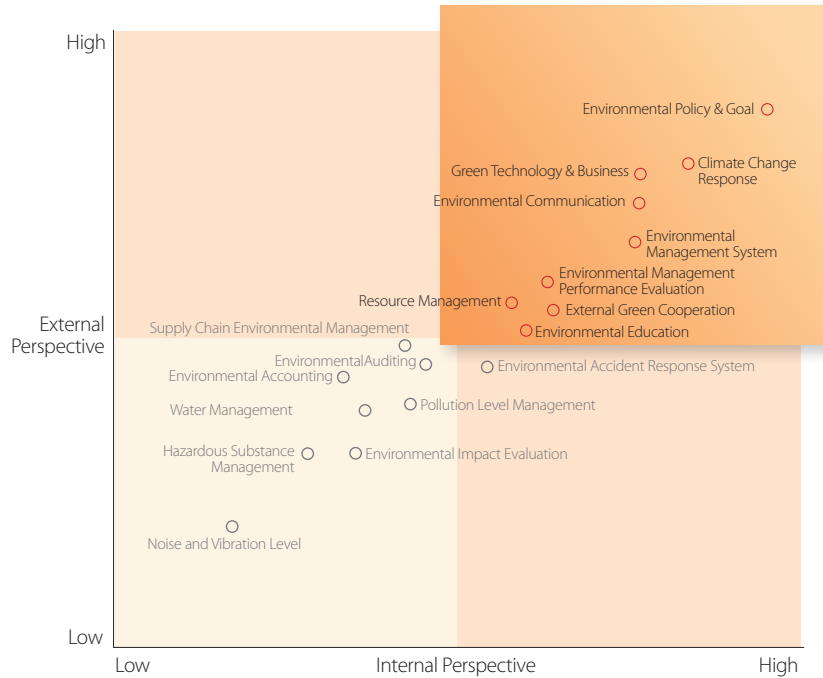
In order to listen to and learn from internal and external stakeholders' opinion on SK's environmental management, SK conducted a survey regarding key issues and presented the results in this report. In the future, SK will continue to communicate with the stakeholders and execute environmental management with high levels of comprehension and satisfaction.

Materiality Test In order to primarily disclose the information requested by the stakeholders, SK assembled a list of performance indicators based on the GRI (Global Reporting Initiative) Guideline and Ministry of Environment's Environmental Report Guideline. During the process, SK has reorganized the definition of each indicator in a way that is more appropriate to the context of its businesses, so the stakeholders can better understand the meaning of these indicators.

Category	Evaluation Indicator	GRI Guideline	Environmental Report Guideline
Environmental Vision and Strategy	Environmental Policy and Goal	-	2.1~2.4
	Environmental Management System	-	3.1
	Environmental Accident Response System	-	3.2
	Environmental Auditing	-	3.3
	Environmental Education	-	3.4
	Environmental Management Performance Evaluation	-	3.5
	Environmental Accounting	EN30	3.6
Environmental Impact and Performance	Climate Change Response	EN6, EN16~18, EN29	4.4, 4.11, 4.13
	Green Technology & Business	EN26~27	4.11~4.12
	Resource Management	EN1~7	4.1, 4.3
	Water Management	EN8~10	4.2
	Hazardous Substance Management	EN23	4.16
	Pollution Level Management	EN19~25	4.5~4.9
	Environmental Impact Evaluation	EN11~15	4.10
	Noise and Vibration Level	-	4.15
Stakeholder Partnership	Environmental Communication Activities	-	5.1, 5.5
	Supply Chain Environmental Management	-	5.2
	External Green Cooperation	EN28	5.3~5.4, 5.6

Result of the Materiality Test Focusing on the performance indicators with higher levels of materiality in the outcome of the materiality test. SK has prepared the environmental DMA (Disclosure on Management Approach) and disclosed related information in this report.

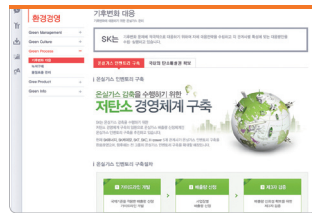
The result of SK's materiality test has been analyzed as illustrated below; page numbers of each indicator can be also found in the table below in order to assist the readers to easily find specific information.



SK is striving to be the Global Environmental Value Provider based on SK's green management vision noted as 'We contribute to the society's sustainable development and happiness through our eco-friendly management activities'.

Evaluation Indicator	Key Performance	Report Page
Environmental Policy & Goal	Established SK green management vision & strategy Set detailed implementation plan of Green Culture, Process and Product	14~15
Climate Change Response	Systemized affiliates' GHG inventory; established GHG reduction target Operated GHG emission reduction program	14, 35~36 37~38
Green Technology & Business	Selected and promoted SK 7 Key Green Technologies Established 3E Strategy and promoted green business	48~50 15, 51
Environmental Communication Activities	Operated 'Environmental Management' section in newsletter Opened environmental contest Green social contribution activities of SK and affiliate companies	24~25 26~30
Environmental Management System	Operated SK Environment and R&D Committee and the affiliates' Environment Committees Acquired and maintained ISO14001 certificate of each affiliate company	16~17 34
Environmental Management Performance Evaluation	Managed and established key indicators for achievement of SK green management	14
External Green Cooperation	Joined and worked with UNGC; included in DJSI	31
Resource Management	Managed resource consumption, including energy and water, of SK and affiliates Managed waste generation and discharge status	39 41
Environmental Education	Operated the Group-wide online environmental education, MDP course, and job training for environmental managers, etc.	20~21

Green Culture, More Green



Group Environmental Management Website

p24

Establish an effective communication channel about the Group and the affiliate companies' environmental management activities with the members of the organization



Carbon Cashbag

p25

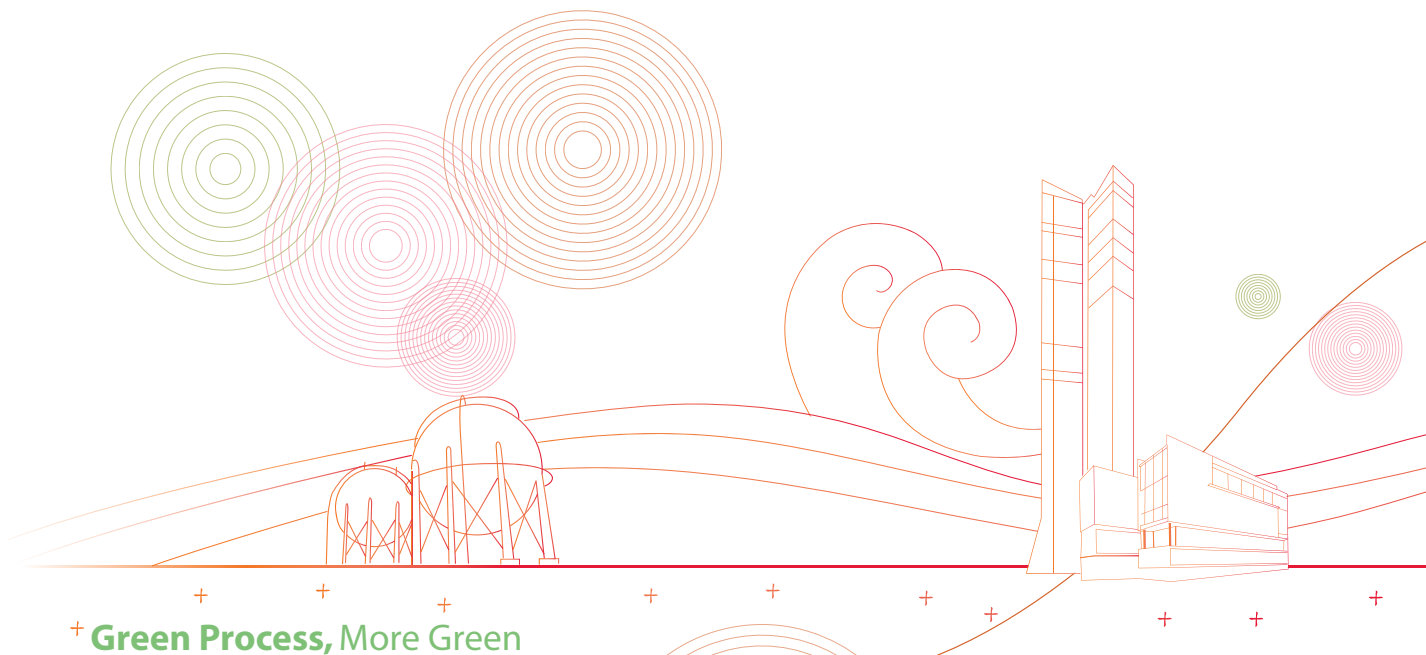
Provide Carbon Cashbag point to low-carbon products consumers and to low-carbon store customers (SK marketing & company)



Green Sports

p25

Encourage the citizens to practice green living by applying the concept of 'Low Carbon, Green Growth' on the domestic professional baseball scene (SK Wyverns)



+ Green Process, More Green



Establishment of GHG Inventory and Initiation of the Group Emissions Trading Scheme

p37

Analyze the current GHG status through GHG emission calculation and promote variety of GHG emission reduction activities such as internal emissions trading scheme



Eco Green Boiler

p38


Constructed 'resource-circulating' green sites through activation of waste wood fired boiler (SK chemicals)



GreenWin-Win

p44

Execute green growth steam networking cooperation project that utilizes waste heat between SK energy and Aekyung Petrochemical (SK energy)

Main achievements of SK and its affiliates, Special Features, are marked with  in this report, so that the readers can easily find relevant details.



Grant PETG to Haiti

p26

Provide high-performance material (PETG), which is used in drinking processor, 'Watercone', to destroyed areas in Haiti to help mitigate water shortage problem (SK chemicals)



Great Green Wall

p26

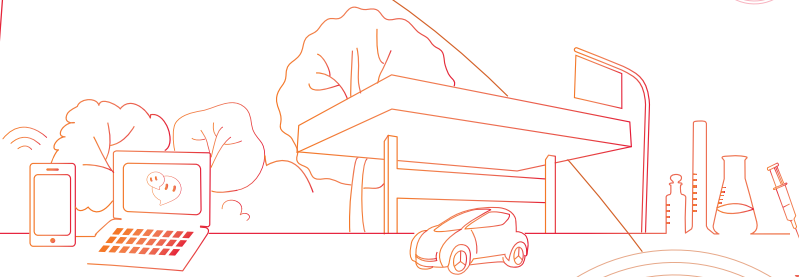
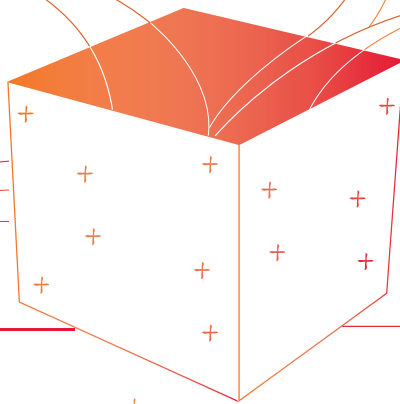
Execute the joint afforestation project between Korea and China to reduce damages from yellow dust as well as to prevent desertification (SK energy)



Happy Green School

p29

Operate the Happy Green School, where SK employees visit elementary schools for one-day environmental introduction and environmental education (SK E&C)



Green Product, More Green



SK 7 Key Green Technologies

p48

Investment in the 7 Key Green Technologies including green coal, marine biofuel, solar cell, carbon dioxide recycling, green car, hydrogen fuel cell, and u-Eco City



Biodegradable Film

p55

Successfully achieved commercialization of biodegradable film for the first time in the world, acquiring the certification from Europe and America and was selected as one of the 10 new technologies for eco-friendly plastic film manufacturing in Korea (SKC)



Smart Grid

p56

Play a leading role in Smart Place Project which establishes Smart Green Home and Green Building via participating in 'Smart Grid Jeju Demonstration Complex Project' (SK energy, SK telecom, SK networks, SK E&C)

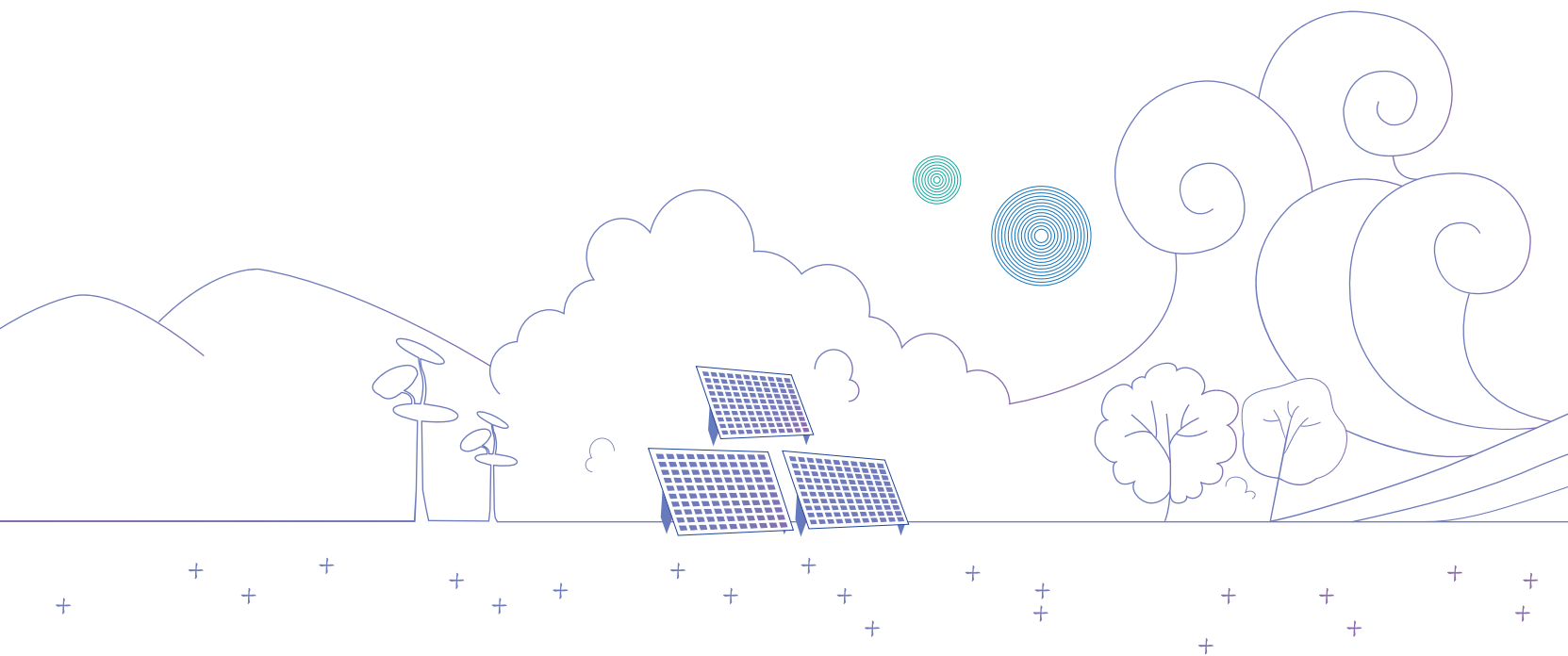


Green Building

p57

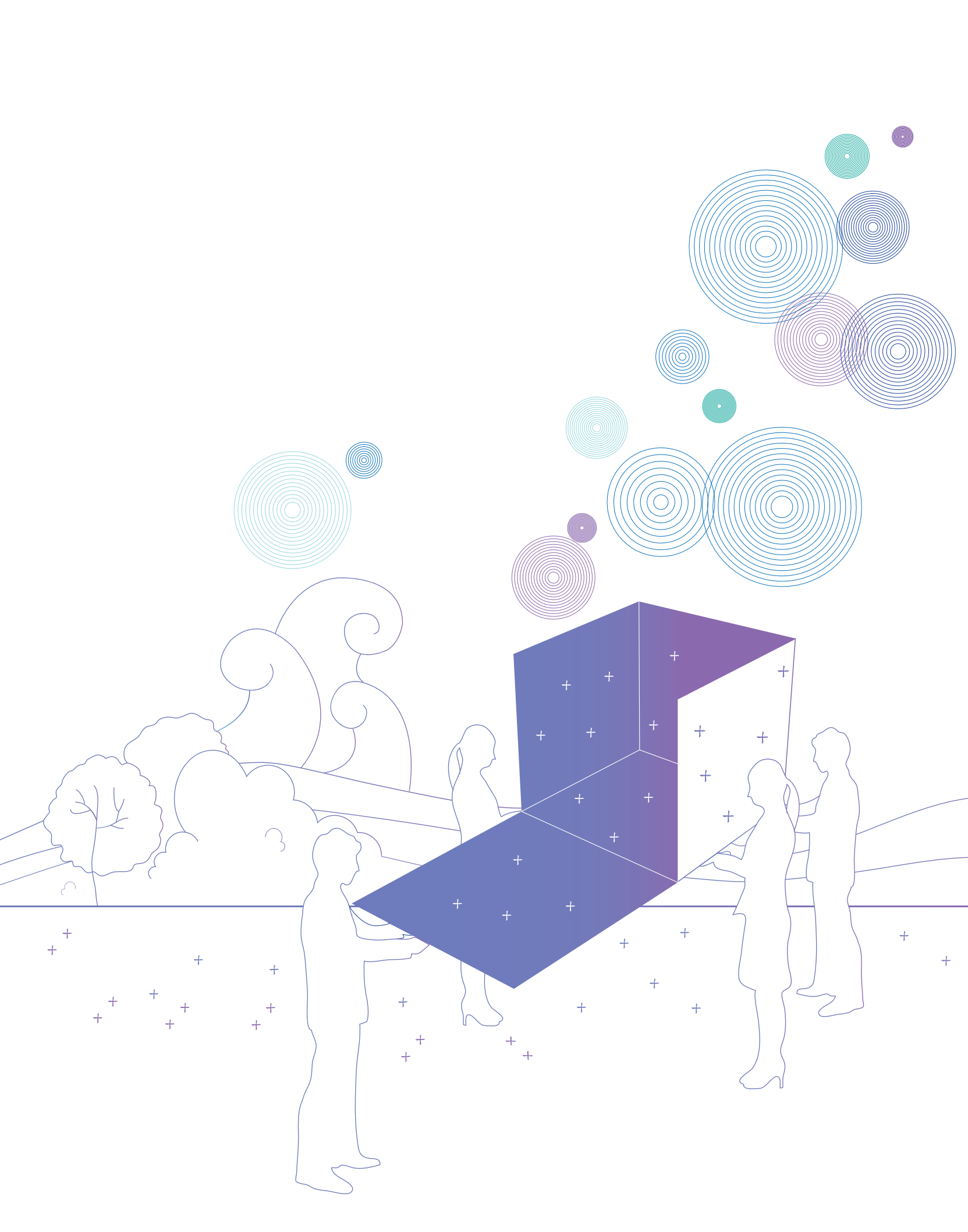
Acquired the highest score in Green Building Certification Criteria (GBCC) and pre-certification for its green building, a combination of 60 green technologies and designs (SK E&C, SK chemicals)

Green Management Strategy



More Green, More Happiness

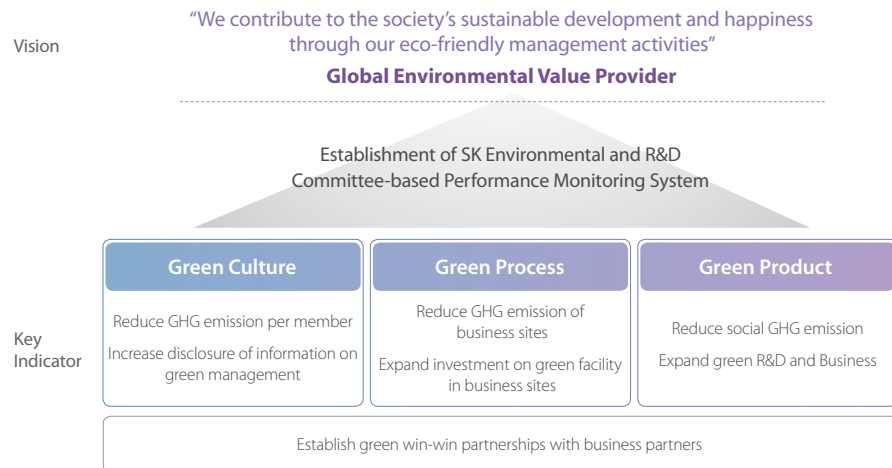
SK contributes to sustainable development and happiness in the society through eco-friendly management activities. SK creates much bigger happiness through green management.



Green Management Vision and Strategy

SK Group's green management vision is 'We contribute to the society's sustainable development and happiness through our eco-friendly management activities'. Combining this vision with the perspectives for low-carbon green management, SK has selected core indicators in the field of Green Culture, Green Process, and Green Product and linked them to control systematic performance which is mainly managed by Environment and R&D Committee. In order to improve level of green management of SK and business partners, SK is planning to expand systematic support through establishment of green win-win partnership with them. SK considers environment as the area of both responsibility and opportunity and is operating a number of life practice programs that encourages the members of the organization to change their awareness of the environment in a more eco-friendly way. Based on this, SK is expanding its business activities to Green Process and Green Product. Ultimately, SK is making efforts to be the global green company with integrated harmony among Culture, Process, and Product.

Vision and Strategy

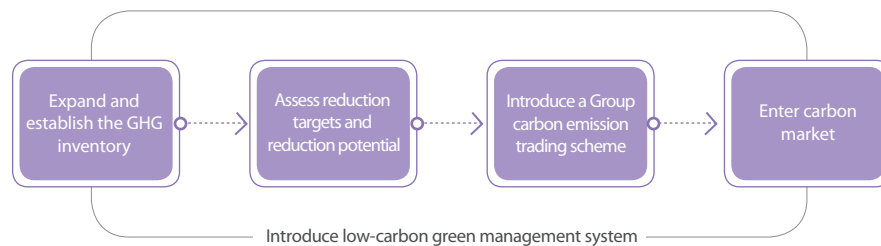


Key Indicator	Status	Goal
Reduce GHG emission per member (office building)	2.39 tCO ₂ per person (2008)	2.03 tCO ₂ per person [15%↓] (2015)
Increase disclosure of information on green management	5 companies (2010)	12 companies (2015)
Reduce GHG emission in business sites	29.7 tCO ₂ /0.1 billion KRW (2009)	20.5 tCO ₂ /0.1 billion KRW [30%↓] (2020)
Increase investment on green facility in business sites	-	700 billion KRW (2015, accumulative)
Reduce social GHG emission	0.16 million tCO ₂ (2009)	30 million tCO ₂ (2020)
Expand green R&D and business	1 trillion KRW (2010)	8.7 trillion KRW (2020, accumulative)
Establish green win-win partnerships with business partners	-	Expand green management education and business cooperation

Green Culture Strategic Direction SK introduced the Group-level environmental management since 2008, which was expanded and operated to educate employees and in formation of Environment Committee. In 2010, SK has set reduction target of greenhouse gas (GHG) emission per person and Group-wide green life practice program has been developed to create green corporate culture. In addition, SK also carried out diverse activities such as building the Group's environmental management website, opening cyber education course, and establishment of a green office. To maintain an eco-friendly image, SK has published environment reports for both the Group and the affiliate companies. Furthermore, SK will continuously make its best effort to establish low-carbon corporate culture and promote an eco-friendly brand image.

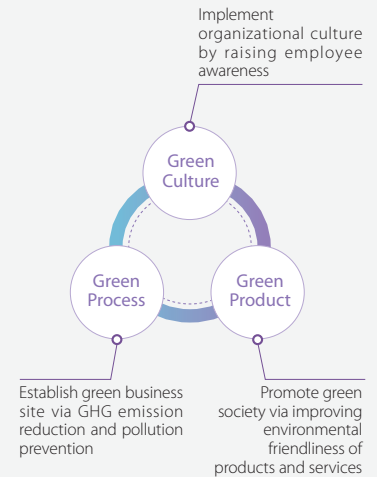
Green Process Strategic Direction SK made a baseline study for a collective response towards climate change and proactively complied with government environmental policy prior to the Post-Kyoto period. First, SK extensively developed greenhouse gas inventory of its affiliate companies and analyzed emission reduction option and reduction potential, setting Group-wise greenhouse gas emission reduction target and reduction action plans. Based on this, SK plans to implement Group emission trading scheme and advance into carbon markets. Through efficient reduction of greenhouse gas emission and establishment of green business sites, SK will achieve low-carbon management by implementing a low-carbon green management system.

Climate Change Response Strategy Roadmap



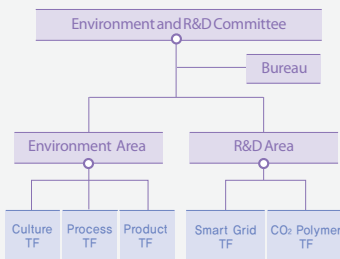
Green Product Strategic Direction SK decided the 7 Key Green Initiatives of green technology research and development (R&D) and business areas in order to leap forward as a leading company in 'Low Carbon, Green Growth' era until 2015. To take a lead of 100 year of new growth engine, SK developed a new growth strategy of '3E (Energy, Environment, Enabler)'.

SK not only addresses and resolves limited and traditional environmental issues including air, water, and waste, but also comprehensively implements 'broad' businesses for emerging environmental issues such as renewable energy and low-carbon businesses. SK develops synergy effects between affiliate companies in overall consideration of process status and potential for future growth within the Group. SK will contribute to realize a low-carbon society through reduction of greenhouse gas emission in society by expanding green businesses.



Green Management Organization

■ SK Environment and R&D Committee : Organization Structure



- Chairman : Vice Chairman & CEO, SK chemicals
- Vice Chairman : President & CEO, SK energy

■ Major Performances of SK Environment and R&D Committee

Green Culture

- Enhanced the Group's awareness in environmental management and education
- Group MDP course, low-carbon green management workshop, etc.
- Expanded establishment and operation of the Environment Committee within affiliate companies
- Published a Group-level environmental report

Green Process

- Established the Group-level green management strategy
- Established the climate change response strategy
- Expanded GHG inventory system within affiliate companies
- Introduced emission trading scheme and established group GHG emission reduction target

Green Product

- Shared green business perspective
- Analyzed the status and capability of environmental business of each affiliate companies

SK organized Environment Committee to build a basis for Group-wise environmental management for the first time among Korean conglomerates. In April 2009, SK established SK Environment and R&D Committee which combined the existing Environment Committee and R&D Committee to actively contribute to the national 'Low Carbon, Green Growth' and to create synergy effect among affiliate companies.

SK Environment and R&D Committee

With Chairman of SK Environment and R&D Committee Chey Chang-won (who is also Vice Chairman and CEO of SK chemicals) in the center, SK Environment and R&D Committee consists of 11 CEOs of the affiliate companies or their CICs (Company in Company). The Committee meeting is held on a monthly basis and sub-meetings are held by environment and R&D wings separately. To enhance execution capabilities, the Working Group is composed of executive members and/or team heads of participating affiliate companies and a synergy TF is being operated. By doing so, the Committee draws strategic directions for the Group-wide environmental management and a synergy effect between the Group and its affiliate companies.

In 2009, SK Environment and R&D Committee established Group-wise environmental management foundation, expanded affiliate companies' participation, and developed an active response system against climate change to accomplish green area tasks jointly. In 2010, SK is mainly carrying out establishment of basis for low-carbon green growth.

SK is implementing systematic green management with SK Environment and R&D Committee by constructing a responsible organization for green technology development among each affiliate companies. SK will apply 'Independent Yet United' management strategy for green management that provides opportunity for affiliate companies to have an independent plan for low-carbon management system and to continuously develop prospective technology related to energy and environment field. By doing this, SK will continue to maintain its position as the leading global green management company.

Affiliates' Environment Committee

SK supports establishment and operation of affiliate companies' Environment Committee at the Group level. At present, SK operates Environment Committee of five affiliate companies including SKC which newly organized Environmental Management Committee as of the first half of 2010.

SK E&C Having launched as the first Environmental Management Committee amongst the affiliate companies of SK Group in July 2008, SK E&C plays a central role in activities such as reporting and evaluation of major environmental management performances and review of the environmental status. With the culture of voluntary practice of green life practice program from employees, promotion of environmental education for children SK E&C has enhanced the corporate environment culture. SK E&C has carried out various green businesses, which include green building like SK chemicals Institute, sewer pipe BTL (Build-Transfer-Lease) in Daejeon, and construction of water circulation system in Unjung, Paju. In 2010, SK E&C will continue to make an effort to promote and expand environmental management activities both internally and externally and green culture through improved communication with the affiliate companies.

SK energy ····· Being established in April 2009, Environment Committee of SK energy has addressed environmental issues, expanded into new businesses for green growth, and carried out activities that improve synergy of environmental management amongst affiliate companies. By developing company-wide green management system, SK energy is making synergy effect for development of company environment and as a driver for new growth. As part of these activities, SK energy introduced the internal emission trading scheme for the first time in Korea, which resulted in encouraging a voluntary competition system to reduce greenhouse gas emission. Moreover, SK energy is making effort to contribute to a green society through development of green technologies such as green car battery, eco-friendly plastic, green coal, and biobutanol.

SK telecom ····· In order to promote green management, SK telecom organized Environment Committee officially named as Green ICT (Information and Communication Technology) Committee and the working-level council in May 2009. Based on visible results such as electronic bill use, old handsets retrieval, and installation of LED lights in branches, SK telecom has accelerated to develop new businesses for greening overall business and operated highly qualified environmental education for its members. In 2010, SK telecom's Environment Committee is making effort to set and achieve reduction target for greenhouse gas emission, and carries out diverse activities through green social contribution. To promote greening of industry overall, SK telecom will take a lead in green growth through development of new business at IPE (Industry Productivity Enhancement) level.

SK chemicals ····· While SK chemicals's environmental management, which used to be implemented by separate business sites, has now expanded into a company-wide scale since organizing an environmental management induction TFT in January 2009 and launching SK chemicals Environmental Management Committee in May 2009. Based on the motto to become 'a company responsible for the globe's environment and health of human being', SK chemicals has been carrying out diverse activities in terms of Culture, Process, and Product. For the company-wide environmental management to be implemented, 'Save Environment, Add Happiness' has been set as the directions for Green Culture, 'Building Green Plant' for Green Process, and 'Promotion of Green Businesses' for Green Product.

SKC ····· SKC Environmental Management Committee was launched in March 2010 to accelerate the change into low-carbon green company. The Committee aims to establish green corporate culture through initiatives such as operation of company-wide green life practice programs and creation of an environmental management column in the e-newsletter. Additionally, SKC has developed greenhouse gas inventory to build a low-carbon management system and taken efforts to secure carbon credits. SKC will advance into emerging low-carbon businesses such as poly-silicon and LED light businesses.

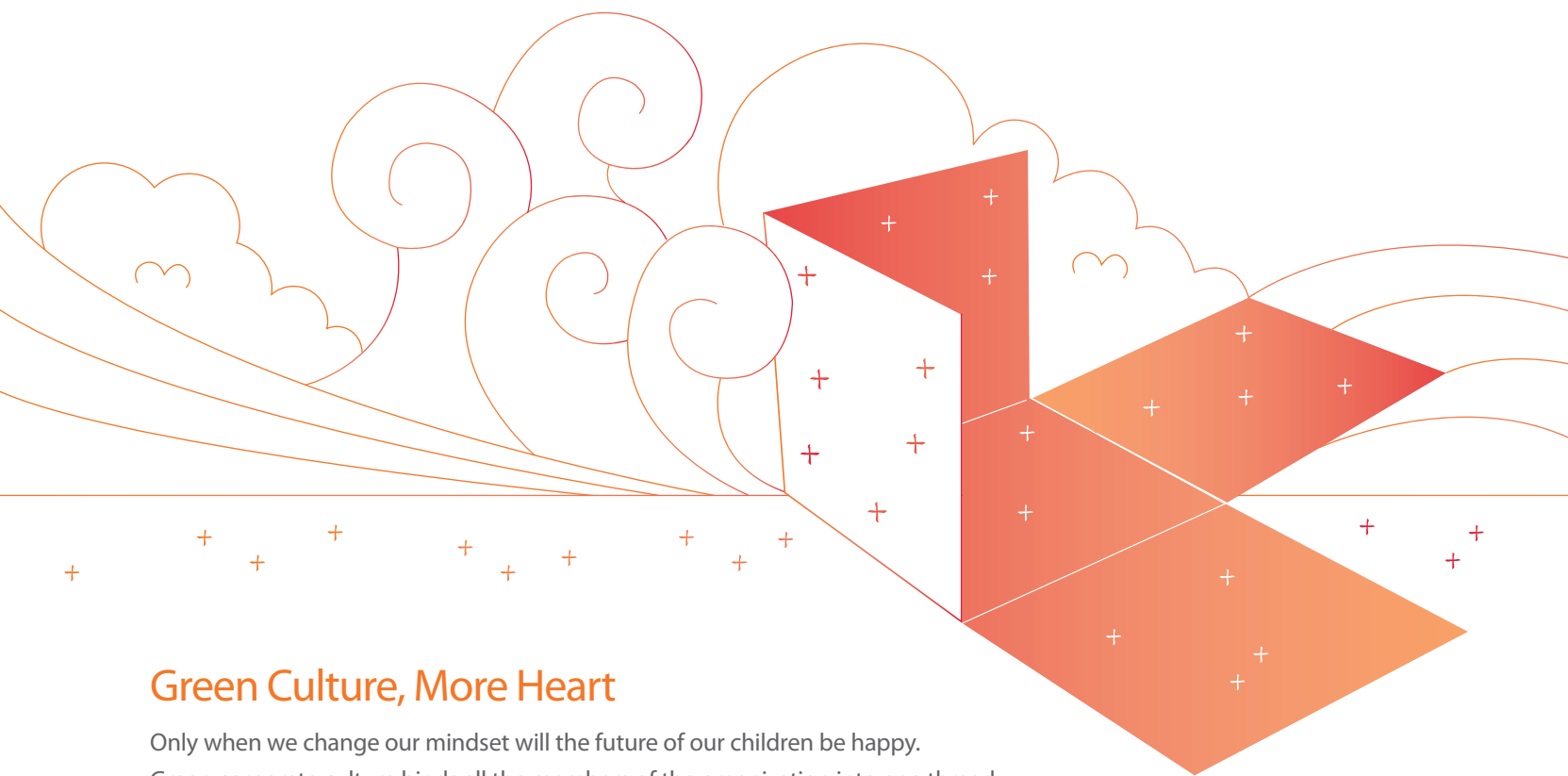
Green R&D Organization

In order to put 'technology' as the first priority and a new driver to accelerate development and growth, SK established 'SK TIC (Technology Innovation Center)'. It is established for driving new growth and to establish strategy for research and development with an open innovation approach. TIC focuses on development of 'global product' based on innovative technology to take lead in the global market and specific projects for securing technology and executed by a global organization, which is jointly managed by TICs in Korea, China, and USA. SK strives to secure and internalize renewable energy which is the highly perspective field in green growth and regarded as a global top technology related to environment. SK also establishes system for sustainable development through process reorganization for securing core technology on TRM (Technology Road Map), Group-wide alignment and incorporation for technology innovation, and establishment of global open innovation. In addition, SK will improve synergy effect through cooperation with the research institutes of the affiliate companies.

■ Environment Committee of Affiliate Companies



Green Culture



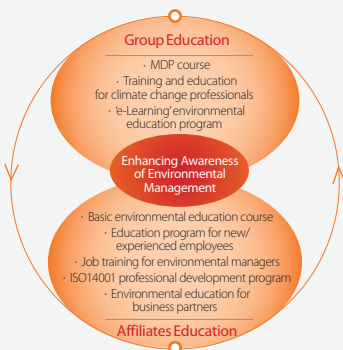
Green Culture, More Heart

Only when we change our mindset will the future of our children be happy.
Green corporate culture binds all the members of the organization into one thread.
By changing the way we think through Green Culture, SK realizes happiness.



Green Communication

■ Main Programs of Environmental Education



■ Group-wide 'e-Learning' Environmental Education Program



■ Training and Education for Climate Change Professionals



■ MDP Course



At SK, we are creating Green Culture that involves everyone. SK is carrying out a number of communication activities for each and every individual member of the organization to become fully aware of the meaning of eco-friendliness and participate in the green management.

Environmental Education

The first step required to change the organizational behavior is to first change individuals' mindset. SK regularly conducts environmental education for all the members in the organization to make them understand the necessity and direction in environmental management, exchange information about internal and external environmental trend, and implement environmental management into action.

Execution of Environmental Education for the Employees SK is carrying out a number of environmental education programs to raise employee's awareness on environment and to encourage them to voluntarily participate in the company's environmental management programs. In 2009, each affiliate company conducted its own environmental education, covering all the members of the 11 major affiliate companies to complete the education module. In 2010, SK is planning to develop a Group-wide 'e-Learning' environmental education program for online training of all members of the organization. This is aimed to increase their level of understanding about various environmental issues and share awareness on the direction of the Group-level environmental management.

Training and Education for Climate Change Professionals In order to train climate change professionals, SK conducted a Group-wide training program customized for sharing knowledge at each trainee's level. This program was launched in May 2010, for approximately a month, and focused on topics such as domestic and foreign trends on climate change, greenhouse gas inventory, and CDM (Clean Development Mechanism). The training was carried out seven times, targeting approximately 150 employees of 12 affiliate companies located in the four regions, including Seoul, Suwon, Ulsan, and Gwangyang.

MDP Course for the Group SK is executing a MDP (Management Development Program) Course targeting the executives. Particularly in the MDP session that took place in April 2009, Chairman of SK Environment and R&D Committee explained an ideal corporate model for 'Contributing to the Society's Sustainable Growth through Eco-friendly Management Activities' and had the opportunity to share exemplary case studies from the affiliate companies' environmental management activities. In the future, SK aims to develop and carry out a variety of education programs focused on environmental and sustainability management.

Stakeholder Education SK's environmental education participants include not only the employees but also the business partners. This is especially true for SK telecom and SK E&C; both these companies expanded the targeted participants of their environmental education program to include the executives as well as the employees of their business partners. SK telecom expanded the target participants of the company's online environmental management education course developed in 2009 to include the business partners. This resulted in approximately 4,000 members to complete the course. In case of SK E&C, the company had an opportunity in 2008 to include the executives from all the business partners to participate in the education program in order to better understand the vision and direction of SK's environmental management.

Cases of Affiliate Companies' Environmental Education

Online Environmental Education Starting from August 2009, SK telecom has been executing online environmental education for all members of the organization. The education program has been developed by the company itself and focuses on the contents that allow the employees to easily understand the concept of climate change, environmental management and therefore sympathize with the need for environmental management. 78% of a total of 3,331 employees participated in the program.

Basic Course for Environmental Education SK is carrying out basic education for environmental management targeting all members of its affiliate companies, through which it aims to promote appreciation for the environment and share the direction of the company's environmental management. As for SK chemicals, it conducted environmental management education three times from August 2009 to March 2010, targeting the headquarter office as well as the five regional sites. The education program consists of three courses on the introduction of environmental management, 'Save Environment, Add Happiness', and the environmental management, in which approximately 900 employees participated and completed a total of 1,645 person-hours.

SK chemicals Environmental Education



Education for All Employees
at Osan Factory



2010 Environmental Education
at Ansan Factory



Environmental Management Information
Session at Cheongju Factory

Job Training for Environmental Managers SK is operating a systematic job training program for environmental managers in the headquarter office as well as in the entire business sites. The program aims to develop environmental professionals by encouraging them to discuss real-life practices related to various environmental problems and to acquire environmental knowledge and processes related to their job. For instance, SK E&C has been carrying out bi-annual education/seminar for environmental managers of all sites from 2007 to 2009. In addition, the company expanded the targeted participants to include both staffs and executives of its partner companies. In 2010, SK E&C seeks to create environmental courses that engage both its environmental managers and the business partners and educates participants on SK E&C's environmental management activities.

SK E&C Environmental Education



Regional Environmental Commission



Advanced Course
for Environmental Experts

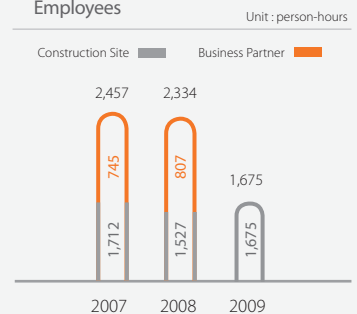


Education for Business Partners

SK telecom Online Environmental Education Program



SK E&C Environmental Education for Employees



Green Communication

Green Office Environment

SK has implemented various programs to save energy and resources that are otherwise unconsciously wasted. The reduction in the amount of waste generation from everyday work activities subsequently reduces greenhouse gas emission from its organization members, creating a green office environment.

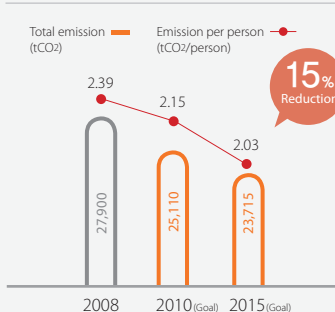
Creation of Green OfficeCO₂ emission from the headquarter offices of SK's 12 major affiliate companies in 2008 accounting for the use of electricity and LNG was estimated as 27,900 tCO₂, which means that emission per person was 2.39 tCO₂. Each affiliate company is planning to reduce 2,790 tCO₂ in 2010 (emission of 24,489 tCO₂), a 10% reduction from the previous year, through green life practice program and improvement in systems. SK aims to further strengthen such reduction activities and reduce its emission level to 2.03 tCO₂ per person by 2015 (15% reduction compared to the base year of 2008).

Introduction of Green Office Environment SystemSK is contributing to the reduction of greenhouse gas through various improvements in energy efficiency system. SK telecom has adopted video conferencing system actively among the affiliate companies of the SK Group. The company has set up video conferencing system in 56 domestic and 3 foreign offices and is conducting on an average 960 meetings through video conferencing per month. By this means, SK Telecom was not only able to save energy required for business travels but also achieved a significant reduction of greenhouse gas emission from transportation. As of 2009, nine affiliate companies including SK E&C are operating video conferencing system and this number is expected to increase in the future.

In addition, SK is utilizing BEMS (Building Energy Management System) to monitor and analyze the energy use to gather main causes for increase/decrease in energy usage and therefore its efficiency.

Execution of Greenhouse Gas Reduction Activities in Everyday LifeThe first step of green corporate culture is to induce members of the organization to voluntarily carry out eco-friendly activities. SK has initiated the green life practice program that encourages its members to use less energy and resources and reduce waste generated in their everyday lives. Since 2008, major affiliate companies such as SK chemicals, SK telecom, and SK E&C has been carrying out related activities; in 2010, through a more efficient execution campaign, SK plans to select exemplary programs of the affiliate companies. By this method SK would like to consider the convenience and the environmental impacts and expand similar initiatives to become Group-wide green life practice program.

■ GHG Emission from SK's Office Buildings



※ Corresponding affiliates : SK holdings, SK energy, SK chemicals, SKC, SK E&S, SK gas, SK telecom, SK C&C, SK telesys, SK networks, SK E&C, K-Power

■ Group-wide Green Life Practice Program

Group-wide Programs	
Energy	Cool wear/warm wear exercise Keeping appropriate indoor temperature Turning off lights during lunch time and after work Setting PC at energy saving mode
Resource	Using personal cup Using recycled paper
Waste	Operating 'No Leftover Food Day' Using recycled print toner
Other	Operating 'Vegetarian Day'

Cases of Affiliate Companies' Green Office Environment

Eco-Office Campaign ···· Since 2008, SK telecom has been carrying out eco-office campaign that aims to reduce the amount of waste generated and the energy use. In the year 2009, the total amount of waste generation reduced by 16.4% compared to the previous year through activities such as double-sided printing and limiting the use of disposable products. Furthermore, the company also achieved a 13.2% increase in the recycling rate compared to the previous year as a result of active promotion of using recycling bins. In addition, SK telecom has set up highly energy-efficient air conditioner for each office building to increase the efficiency of the buildings' temperature control. The natural air cooling systems were also installed and expanded from only in headquarter building to all the base stations, resulting in a total CO₂ emission reduction of 20,000 tCO₂.

Waste Generation and Treatment

	Unit	2007	2008	2009
Waste generated (A)	ton	1,183	1,083	905
Recyclables generated (B)	ton	1,183	597	676
Recycling rate (B/(A+B))	%	28.5	35.5	42.8

GHG Reduction

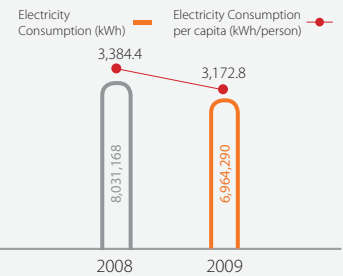
	Unit	2007	2008	2009
Electricity savings	MWh	16,362	22,420	38,791
Management of office buildings	MWh	4,652	2,482	6,478
Installment of natural cooling systems	MWh	11,710	19,938	32,313
GHG reduction	tCO ₂	8,061	11,074	19,972

Green Life Practice Program ···· Introduced in July 2008, SK E&C's green life practice program engages the members of the organization to share their thoughts on how much impact that their everyday use of the energy and resources has on the environment and to carry out various activities to minimize such impacts. By executing 10 detailed activities such as setting personal computers on energy saving mode, stop use of paper cups, and 'No Leftover Food Day', the headquarter building's use of electricity and LNG in 2009 reduced by 13% compared to the previous year. This accounted 2008 emission level of 2.09 tCO₂ per person to reduce to 1.96 tCO₂ per person in 2009. SK E&C aims to reduce CO₂ emission to 1.77 tCO₂ per person in 2010, a 15% reduction compared to the base year (2008) and is conducting a number of activities to achieve this goal.

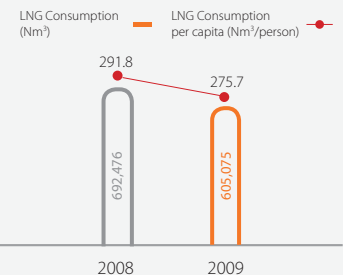
'Save Environment, Add Happiness' Campaign ···· SK chemicals engages the employees participation in eco-friendly activities such as not leaving leftover food, saving energy, and attending environmental events. Their engagement is captured in Green Fund points, which helps to prepare financial resources for the operation of 'Save Environment, Add Happiness' campaign carrying out social welfare activities. The campaign is gaining a huge support from a large number of the employees for its convenience, as the participation is easy – and could be achieved making simple changes in their habits. The 2010 goal of Green Fund point is 600,000 points (283 points per person on average), which has already been achieved as of September 2nd, due to continuous interest and support from the organization members. The company will continue to improve its systems to encourage its employees to more actively participate in the 'Save Environment, Add Happiness' campaign.

SK E&C's Reduction of Energy Consumption

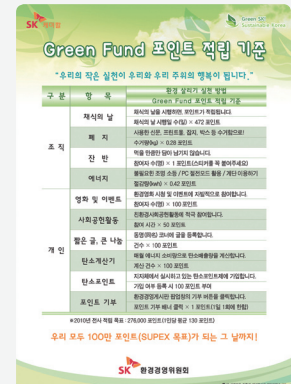
Electricity



LNG



'Save Environment, Add Happiness' Campaign



Green Communication

Encouraging Participation in Eco-friendly Activities

SK is pursuing environmental management with faithfulness and, to encourage the members of the Group to voluntarily take part in its environmental management, is undertaking a number of programs such as company-wide events, campaigns, and promotion activities.

Construction of Group Environmental Management Website In order to efficiently exchange and communicate information on the affiliate companies' environmental management activities with all the members of the Group, SK is planning to build an environmental management website within the Group's intranet. This website will enable the members to see various environmental management activities of individual affiliate companies and to learn about other companies' environmental management activities that generally remain unknown. Furthermore, SK plans to expand access to this website outside of the Group in order to actively communicate its environmental principle, vision, and goals not only to the employees but also to all the external stakeholders in the society.

Inclusion of Environmental Management Column within the Group Newsletter SK has introduced an environmental management column 'Green World that SK is Creating' within the Group newsletter. The newsletter is published on a monthly basis to generate interest among all employees and encourage their participation in the Group environmental management. This communication is shared on each affiliate companies environmental management activities as well as environmental businesses and services in an enjoyable way. The same column is included in the company newsletter of some of the affiliate companies such as SK chemicals and SK E&C to exchange information on environmental management activities and encourage participation from the employees.

Intra-Company Environmental Contest To enhance employees' environmental awareness and discover new ideas, SK E&C has been holding 'SK E&C Environmental Contest' since 2008, which is open to the employees and their family members. Approximately 450 art works have been entered through two occasions of the Contest held so far and the winning works were displayed at an exhibition event which took place in the lobby of the headquarter office. In addition, the works presented at the exhibition were made into desktop calendars and distributed to all employees, in order to help them better understand eco-friendly practices and to raise their environmental awareness.

Showing of Environmental Movie Since June 2009, SK chemicals has been meticulously selecting movies and documentaries on environment and showing it to the employees from the headquarter office and the sites on a monthly basis; the company is providing an opportunity for the employees to watch movies that are not readily available and encourage employees to easily gain interest and understanding on environmental issues.

■ Group Environmental Management Website



■ Group Environmental Management Column



■ SK E&C Intra-Company Environmental Contest



■ SK chemicals Showing Environmental Movie



External Green Communication

SK is undertaking environmental management that engages various members of the society including its clients and other stakeholders through a number of external green communications. Through various channels such as environment-related website and environmental report, SK seeks to disclose environmental information and, through environmental campaigns, events, and green marketing, share its vision and promote the importance of the environment both internally and externally. SK's aim is to disclose environment-related information of all its 12 affiliate companies by 2015.

Publication of Environmental Report SK discloses environmental information of each affiliate companies through its environment-related report. Since the first sustainability report publication of SK energy in 2005 and of SK telecom in 2006, both companies have been reporting on an annual basis. In 2010, SK E&C published its inaugural environmental report and, in the 2nd half of the year 2010, SK Group plans has hereby published the Group-level environmental report to disclose its overall environmental performance. Furthermore, SK chemicals plans to begin environmental reporting in 2011. In the future, SK will continue to communicate its environmental management with members of the society through these reporting.

Environmental Writing Contest SK energy holds Environmental Writing Contest every year. Since 1994, it has continuously gained public attention and has now grown to become the biggest domestic environmental writing competition. When the awards ceremony is over, SK energy provides 3 days 2 nights nature trip to the children who participated in the Festival to experience the nature and helps them realize the preciousness of the natural environment.

Carbon Cashbag SK marketing & company, together with Ministry of Knowledge Economy and Korea Energy Management Corporation, is operating Carbon Cashbag service, which allows customers to accumulate Carbon Cashbag points whenever they purchase low-carbon products and/or shop at stores that are promoting low-carbon operations. Customers can use their Carbon Cashbag points in the 48,000 OK Cashbag-affiliated stores nationwide, as cash to pay for public transits, and at various cultural facilities; all of these contributed to the convenience factor that attracted participation of 3.36 million people. 10% of the Carbon Cashbag that the customers accumulate goes toward the fund development for 'Low Carbon, Green Growth' as well as toward energy facility support projects.

Nate Greentown In 2009, SK communications selected power bloggers from each area as the green reporters and held the Greentown environment-loving campaign, in which the green reporters promoted green life principles and how to practice them in the daily life. Particularly, the 'NATEON (a Korean messenger program) Power-saving Campaign' led to the participation of 15,000 people by adding a simple feature on the program's setting tab that allows PCs to save 50% of electricity when the feature is enabled. The Greentown, which participated voluntarily through 24 million members' social networking, has been named as the best case of digital diplomacy by the United Kingdom Ministry of Foreign Affairs in 2009 and, for the next one year, will be utilized as the research material for the marketers of Asia Pacific region.

Green Sports In 2009, SK Wyverns signed an agreement with City of Incheon and Korea Energy Management Corporation for realization of green sports and declared to become the first domestic sports team to go carbon neutral. SK Wyverns is currently undertaking a number of green sports activities such as the players' uniforms made with PET-recycled material, electric bullpen cars, solar-powered barbecue zone, LED lights, rainwater recycling system, all of which are part of its initiative towards building eco-friendly infrastructure. In the future, the team is also planning to build an exhibition hall where its fans can experience the renewable and alternative energy.

■ Number of Entries for Environmental Writing Contest

2003	118,000
2004	128,758
2005	132,382
2006	78,354
2007	85,142
2008	75,631
2009	87,893

■ Carbon Cashbag



■ Nate Greentown

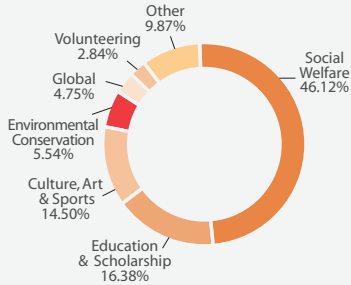


■ Green Sports

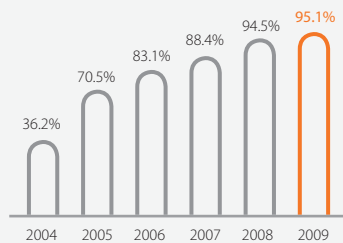


Green Social Contribution

2009 Social Contribution Budget by Different Categories



Registration Rate of SK Volunteer Group

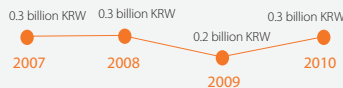


Free Provision of PETG (Watercone) to Haiti



Fund Raising for Great Green Wall Project

Total 1.1 billion KRW



Afforestation Project



SK implemented diverse social contribution initiatives in six areas such as social welfare, education & scholarship, culture, art & sports, environmental conservation, and global volunteering, thereby developing competent human resources, preserving environment, cultivating culture, and realizing all-around happiness-sharing like the global contribution activities.

Having founded volunteer group in 2004, SK is spreading culture of volunteering. By the end of 2009, 26,071 employees from the 14 major SK affiliate companies' total employee strength of 27,370 people signed up for participating in the volunteer group (rate of participation is 95.1% and the average volunteer hours per person is 14.1 hours). These employees were divided among 396 volunteer group and have delivered the warm-hearted affection in many parts of the society.

Global Social Contribution: Foreign Aid for Disaster Regions

Free provision of PETG (Watercone) to Haiti In order to resolve severe drinking water problems caused by the earthquake outbreak in Haiti, SK chemicals provided PETG (Polyethylene Terephthalate Glycol) for free, which is an eco-friendly high-quality material used for Watercone, a drinking water processor made by MAGE Group of Germany, and was responsible for delivery of these products as part of its overseas humanitarian emergency response.

Assistance for Reconstruction in Peru As part of partnership with foreign countries and NGOs, SK energy implemented social contributions to local communities in need. Especially, SK's local subsidiary in Peru reconstructed a total of 48 schools and returned them to the local community. By executing green area development projects SK Energy created green zones near the 34 reconstructed schools engaging local artists, teachers, and students.

Educational Environment Improvement in Peru

Program	Period	Performance	Amount of Funding
School reconstruction	2007 ~ 2009	48 schools	3,437,261 USD
Creation of green zones	2009	34 schools	82,424 USD

Global Social Contribution : Aid for Response to Climate Change

Korea-China Great Green Wall SK energy is operating Great Green Wall project since 2007, which is a 14km² wide afforestation project in the Kubuqi Desert of Inner Mongolia where yellow dust originates. This project is done under the supervision of Future Forest (the Korea-China Culture Youth Federation), the Communist Youth League of China, and the People's Government of Dalateqi of Inner Mongolia. For this project, SK energy is co-raising funds with Korea Forest Service and, with support of total amount of 1.1 billion KRW, the company has taken a lead to minimize effect from yellow dust and to combat deforestation.

Domestic Social Contribution: Periodic Activities for Environmental Clean-up

Environmental Clean-up Activities for Restoration of Ecosystem To preserve environment and improve corporate image, SKC has actively executed 'One-Company, One-River, One-Mountain' campaign since 2003. SKC visited Jamwon District of Han River, Taewha River in Ulsan, and Seoho Stream/Yeonghwa Stream in Suwon and executed environmental clean-up activities such as picking up waste and weeding the lawn every one to two times a month. By operating other programs like 'Maintaining Caterpillar Village for Children Education,' SKC conserved and protected natural ecosystem at the same time.

Environmental Clean-up Activities at Surrounding Areas of Ulsan and Pyeongtaek Bases Ulsan Base of SK gas executed environmental clean-up activities near Hoeya River of Huiya Dam located in Deokhari, Ulju-gun, for a total of 10 times in 2009. Employees' families participated in these activities that took place over the weekends, practicing eco-friendly sharing.

Environmental Clean-up Activities for Local Community Environment In order to preserve the local community environment, 18 departments from SK networks implemented diverse environmental clean-up activities targeting 17 areas in 2009.



Environmental Caring Project by Chungnam City Gas and Jeonbuk Energy Service Chungnam City Gas participated in 'Green Daejeon Project' hosted by Daejeon Metropolitan City and conducted planting trees with people having intellectual deficiencies. In addition, Jeonbuk Energy Service also conducted cosmos planting project for the Hanaro road, the gateway of Inksan, with SK volunteer group of Jeonbuk area, Iksan Volunteer Center, and Iksan Community Mental Health Center.

Environmental Caring Project of 'One-Company, One-Coast' Pyungtaek Base of SK gas, which has executed 'One-Company, One-Coast' project, implemented environmental clean-up activities near the Pyungtaek Port and Dangjin Port for a total of 13 times in 2009 and participated in activities such as elimination of waste near the Namyang Lake to preserve the environment.

Environmental Clean-up Activities in Main Regions of Korea SK broadband executed environmental clean-up activities in main regions of Korea. Western Head Office of Sales and Network Head Office in Daejeon cleaned up Gyejok Mountain and Gyeryong Mountain; Western Head Office of Sales and Network Head Office in Gwangju cleaned up Gwangju Stream and Mudeung Mountain; and Gangbuk Operations Head Office cleaned up surrounding areas of Bukhan Mountain and promoted environmental conservation campaign on Bukhan Mountain. In addition, Gangnam Head Office of Sales carried out environmental conservation activities for Suri Mountain in Anyang and Convergence Head Office of Sales for nearby Nam Mountain, respectively.

■ Environmental Clean-up Activities at Seoho Stream/Yeonghwa Stream, Suwon



■ Huiya River Environmental Clean-up Activity



■ Tree Planting Event with the Intellectually Disabled



■ Namyang Lake Maintenance



■ Mudeung Mountain Environmental Clean-up Activity



Green Social Contribution

■ Jungnang Stream Environmental Clean-up Activity



Environmental Clean-up Activities for Jungnang Stream on Environment Day Recognizing the Environmental Day on the 5th of June, WALKERHILL carried out clean-up activities at Jungnang Stream with district residents, companies, and district office. Thirty members of WALKERHILL from Strategy and Planning Office, Corporate Culture Office, and Financial Management Office removed alien plants and wastes and signed up to the campaign to become fully aware of driving methods that reduces engine idle and prevents environmental pollution and to practice green living.

■ Environmental Conservation Campaign for Acha Mountain Celebrating the 46th Anniversary

..... Celebrating the 46th Anniversary of WALKERHILL, approximately 200 members of the organization carried out environmental conservation and commemorative tree planting activities at Acha Mountain. Beginning with the planting of cherry blossom tree, all participants collected wastes and fallen leaves, as they climbed the mountain, and planted crops in the Acha Mountain Ecological Park with children of the kindergartens in the district.

Acha Mountain Environmental Conservation Campaign

2002	2007	2008	2009
Since the foundation of ASAMO (a group of people who love Acha Mountain), the group conducted Acha Mountain environmental conservation campaign more than three times a year.	Release of butterfly	Environmental activities for Acha Mountain Ecological Park	Plant seedling and book donation to the Ecological Park

■ 'One-Company, One-Village' Volunteer Activity



Domestic Social Contribution: Periodic Caring for Natural Environment

'One-Company, One-Village' Volunteer Activity In order to reconnect urban and rural areas and realize the society of sharing, Corporate Culture Division of SK networks GHQ (Global Headquarter) established 'One-Company, One-Village' relationship and implemented continuous exchange activities with villages. In 2008, it created sisterhood relationship with Omso-ri in Seorak-myeon Gapyeong-gun, Gyeonggi-do, and helped farmers dibble rice seedling, fertilize, weed, harvest the crops, and bundle rice straws. By participating in the Gapyeong-gun Farmers' Festival, the company practiced caring for the rural area.

■ Green Volunteer Activity with Family



Green Volunteering with Families SK E&C volunteer group has executed activities since 2005, in which the employees and their families as well can participate. In 2009, SK E&C employees carried out diverse volunteer activities/programs such as 'Dream Forest Tree Planting of Northern Seoul with Family,' 'Tancheon Cleaning with Family,' and 'Sharing Firewood of Love.'

■ Maintaining Seoul Forest



'One-Company, One-Village' Exchanges and Visits CEO, employees, and their families from SK gas visited Jidong Sanchon Village, with which SK gas formed 'One-Company, One-Village' sisterhood relationship, to help the residents' work and purchased the crops harvested directly from the farm. This is aimed to contribute in revitalization of the rural economy. SK gas will periodically visit the village and execute various exchange activities through training of new employees and consolidation of its members.

Maintaining Seoul Forest SK E&C employees visit Seoul Forest once every week to participate in maintaining the 'Forest of Sharing.' During the year 2009, employees picked fruits, rooted out weeds, removed fallen leaves, prepared the trees for winter and conducted other seasonally appropriate activities for this forest.

‘One-Mountain, One-River, One-Road’ CampaignThrough ‘One-Mountain, One-River, One-Road’ campaign, SK E&C executed environmental conservation and was able to build eco-friendly corporate image at the same time. In 2009, volunteer team of SK E&C Head Office carried out activities for environmental clean-up on a biweekly basis. The company also selected one location among the mountain, stream, and road in every province of Korea, and concentrated its efforts for environmental management and tree-caring as ongoing activities in these locations.

Jeonbuk Energy Service's Operation of Happy Vegetable Garden at Songhak CNG StationIn 2005, Jeonbuk Energy Service transformed nearby closed land into a vegetable garden at Songhak CNG Station following to the suggestion of its employees. Jeonbuk Energy Service grew vegetables such as hot pepper and cherry tomatoes in the garden and provided them to the customers visiting the Station and also to the local residents. Songhak CNG Station, through its campaign on green vegetable garden, has strengthened its ties with local residents and removed the bias of being a hazardous facility.

‘One-Company, One-Road’ CampaignIn order to preserve the local environment, SK broadband has executed ‘One-Company, One-Road’ Campaign. In 2009, all the 135 employees of Convergence Operation Office cleaned and maintained the surrounding area of Internet Data Center in Seocho-dong, Seocho-gu, Seoul, for 12 times.

Domestic Social Contribution: Events

Activities for Prevention of Forest Fire at Ganwol MountainEmployees of SKC Ulsan factory executed campaign to prevent activities of forest fire in winter nearby Ganwol Mountain in Uljugun. As part of the forest-caring activities, the company also promoted prohibition of cooking on mountain and clean-up activities along mountain trails. Through the activities for forest fire prevention, SKC had a great opportunity to raise awareness amongst local residents and all the employees of SKC Ulsan factory about the value of natural environment and hazards from forest fire.

Nurturing Talent and Environmental Education

Forestation for Nurturing TalentWith a belief that ‘Those who love the nation plant trees,’ SK planted 3 million trees in deserted forest lands in 1972 and since then became a role model to encourage corporate tree planting initiatives. SK has continuously encouraged afforestation and tree plantation activities to cultivate human resources. Beginning its tree planting activity with pine tree seedlings, SK has carried out diverse activities such as SK broadband’s tree-caring for ‘Low Carbon, Green Growth,’ SK telecom’s planting of 3,000 trees, and SKC and SK telesys’ planting for happiness-sharing during 2010.

Happy Green SchoolBeginning of 2009, SK E&C dispatched its employees to elementary schools as a one-day teachers providing environment classes under the Happy Green School program launched as a part of green social contribution. This program is designed to make children aware on global environmental crisis such as climate change. The children are also taught on the theme, ‘Making eco-friendly city with SK E&C,’ and to acknowledge the causes and responsibility for adopting such phenomenon. This program only targeted elementary schools in Seoul when it was first introduced in 2009; today, it has further evolved and enjoys the participation of 4,650 students from 40 schools, and this number is expected to increase to 10,500 students in 2010.

■ Happy Vegetable Garden



■ Forestation Project



■ Happy Green School



Green Social Contribution

■ Energy Class for Elementary School Students



Energy Class for Elementary School Students As part of social contribution activities for local community, SK energy Incheon complex, company that represents Incheon, has launched 'Energy Class for Elementary School Students in 2009' targeting to educate elementary school students in the western district of Incheon. In 2008, the program targeted 900 students from 4 elementary schools for about a month; in 2009, energy class for elementary schools has been completed for 460 students from 4 elementary schools from April to October.

■ Used Mobile Phone Collection for Helping Children with Heart Disease



Recycling and Transforming into Resources

Collection of Used Mobile Phone for Helping Children with Heart Disease To prepare the 'Project Fund for Free Surgery for Children with Heart Disease in Korea and Overseas,' SKC has collected used mobile phone in all business sites of Suwon and Ulsan for two months every year. As a result of active participation from the employees, around 200 mobile phones were collected and delivered to the Salvation Army. The funds accumulated from this activity were used to provide free surgery to children with heart disease every year.

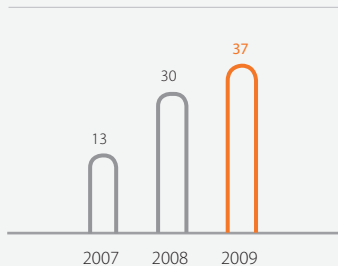
■ Opening Ceremony of SR Center



Operation of SR Center for Resource Circulation SK gas, as the co-partner of 'Eco-city Seoul' consortium, signed a contract with Seoul City for 'operation of resource circulation center' to help the underprivileged and create new jobs for the derelict through the business profits in October 2009. Through this, SK gas has assisted fund development for operating resource circulation center and established system for collecting used home appliances and mobiles phones and is supporting promotion, marketing, and technology development.

■ Number of Used Mobile Phones Collected

Unit : 10,000 units



Campaign for Collecting Used Mobile Phone Since 2007, SK telecom has executed green IT through a campaign on collection of used mobile phones. It is an environmental campaign that recycles wasted metal resources, thereby creating value added recovery of metal and reduction of heavy metal pollution. This campaign was developed targeting 4,000 elementary, middle, and high schools in Korea. In 2009, SK telecom collected a total amount of 0.37 million mobile phones by promoting this campaign with Ministry of Environment and mobile phone manufacturers.

Green Club Activities

Operation of Environmental Core Group SK chemicals organized 'Stream-loving Club' and 'Seed Bomb Club' as part of the environmental Core Group responsible for executing sustainability management and preserving the environment and actively promoted them in 2009. 'Stream-loving Club' consists of those who love the nature and is a leading group for promoting campaign of 'One-Company, One-River', which is a mid- to long-term social contribution project with the goal of preservation of the streams. 'Seed Bomb Club' comprises of those who are interested in resolving desertification and soil erosion problems and it is actively engaged in researching the detailed and practical means to prevent the desertification in China.

Green Partnership

With regard to diverse issues on governmental 'Low Carbon, Green Growth' policy, SK has executed direct and indirect communication activities with Presidential Committee on Green Growth, Ministry of Environment, Ministry of Knowledge and Economy, and Korea Communications Commission. Through these communications, SK assists to establish, amend, and maintain governmental regulations and policies. SK and its affiliate companies also joined relevant international organizations and national foundations and institutions, resulting in continuous promotion of external green communication.

International Cooperation Activities In 2007, SK telecom and SK energy joined UN Global Compact (UNGC), a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption. In 2008, Chairman & CEO Chey Tae-won of SK became the first Korean to be appointed on the Board of Directors of UNGC, contributing to raise the international status for SK as well as Korea.

National Cooperation Activities Major affiliate companies of SK have joined environment-related domestic organization and foundations such as KBCSD (Korea Business Council for Sustainable Development), BISD (Business Institute for Sustainable Development), and KEPA (Korea Environmental Preservation Association) and carried out various tangible and intangible activities. They are trying to communicate with stakeholders through sustainability management-related information exchange activities such as identifying the trends of domestic and foreign sustainability management regulations and policies and spreading the information about the leading global cases on corporate sustainability management, as well as through active promotion activities of best practices of SK's sustainability management.

SK is striving to actively communicate environmental problems through green social contribution such as clean-up for streams, environmental and energy education programs, and tree planting. Communication activities also include survey on perception of sustainability and environmental management targeting local community, NGO, and public, dialogue with civil organizations, and press release.

Response to External Evaluation In 2010, SK telecom became the first Asian telecommunication company to be listed on DJSI (Dow Jones Sustainability Index) World for three consecutive years. SK telecom, SK energy, and SK holdings have been listed on DJSI Asia Pacific; SK telecom, SK energy, SK holdings, SKC, SK chemicals, and SK C&C have been listed on DJSI Korea. SK will ensure systematic preparation to assist its affiliate companies to be regularly listed on DJSI.

In addition, SK telecom, SK chemicals, and SK broadband responded to the survey from CDP (Carbon Disclosure Project) Korea aimed at disclosing information on opportunities and risks of direct and indirect impacts of climate change on companies. SK energy and SK E&C are planning to participate in CDP in the near future.

■ UN Global Compact



■ DJSI

Since the joint development of the Dow Jones Sustainability Index (DJSI) by Dow Jones of the US and SAM of Switzerland, the Dow Jones Sustainability Index (DJSI) has become a global sustainability standard, recognized for its world's best level of authority and performance, which enables integrated assessment of the companies from economic, environmental, and social perspectives, which is beyond the simple financial data analysis.

DJSI	World	Asia-Pacific	Korea
2009	SK telecom	SK telecom SK energy	SK telecom SK energy SKC
2010	SK telecom	SK telecom SK holdings	SK telecom SK holdings SK energy SK chemicals SK C&C

Green Process



Green Process, More Action

Response and action against climate change leads to happiness in the future.

Green business sites that practice GHG emission reduction and pollution prevention

SK builds happiness through a change in its action known as Green Process.



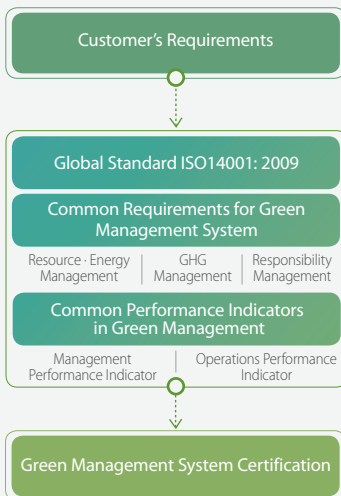
Enhancement of Green Management System

The Government of Korea is undertaking an institutional change from the current ISO14001-based Certification of Environmental Management System to a Certification of Green Management System. This approach could reflect actual performances of increase in energy efficiency and reduction of greenhouse gas emission, as an initiative to settle and accelerate 'Low Carbon, Green Growth'. In alignment with this, SK is putting multi-directional efforts to create and disseminate low-carbon green management system.

■ Status of ISO14001 Certification

Affiliates	Region	Certified Year
SK energy	Ulsan	1996
	Incheon	1996
SKC	Seoul/Ulsan	1996
	Suwon	2000
SK E&C	Seoul	1997
SK chemicals	Ulsan	2005
SK telesys	Seoul/Seongnam	2005

■ Green Management System Certification Model



Operation of Environmental Management System (ISO14001) ····· SK, mainly the affiliate manufacturers' sites, acquired ISO14001 certification and are maintaining the certification through annual follow-up audits and recertification evaluations. Ulsan and Incheon complexes of SK energy were the first to be certified with ISO14001 in 1996, and other main affiliate companies such as SK chemicals, SKC, SK telesys, and SK E&C also acquired ISO14001 certification and are maintaining the certification. Furthermore, most business sites have developed and are operating 'SHE Integrated Management System', which manages not just the environmental issue but also safety and health related issues.

Promotion of Green Management System ····· In order to adopt the Certification of Green Management System, the government is preparing detailed standard and processes that reflect international trends based on 'Green Management Standard'. In response to this green management system, SK has determined key indicators such as energy saving goal and greenhouse gas emission reduction target as part of its effort to systematically manage environmental information at Group-level and is also constructing systematic data management system.

Environmental Cost and Investment Activities ····· In order to minimize pollutant generation at business sites and to develop and produce eco-friendly products, SK is continuously making investment for the conservation of domestic and foreign environment. The analysis of data from SK energy, SK chemicals, SKC, SK telecom, SK E&C, and K-Power indicates that from 2007 to 2009, most of the investment was focused on end-of-pipe treatment and environmental facilities.

Unit : billion KRW

Category	2007	2008	2009
End-of-Pipe Treatment Activity Based Costing (hereinafter, ABC)	1,368.9	1,848.8	2,403.3
Precautious Preventive ABC	0.2	24.7	1.6
Stakeholder ABC	0.9	0.7	0.9
Legal Compliance and Recovery ABC	5.3	11.3	14.7
Investment in Environmental Facilities	1,268.2	1,773.1	617
Environmental R&D Investment	87	188.1	190.8
Total	2,730.5	3,846.7	3,228.3

By 2015, SK plans to invest approximately 700 billion KRW for green infrastructure development such as improvement of energy efficiency at business sites, reduction of greenhouse gas emission, and pollution prevention facilities.

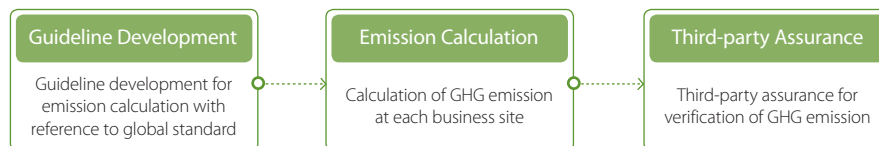
Efficient Reduction of Greenhouse Gas Emission

SK is expanding greenhouse gas inventory establishment of its affiliate companies. SK has also set reduction targets and is reducing greenhouse gas emission accordingly. Furthermore, SK is planning for effective response to the domestic greenhouse gas policy through operation of Group-level emission trading scheme and the step-by-step expansion of participating affiliate companies.

Establishment of Greenhouse Gas Inventory

Mainly targeting the five GHG-intensive affiliate companies including SK energy, SK chemicals, SKC, SK telecom, and K-Power, SK has established greenhouse gas inventory system to develop infrastructure for low-carbon management. In 2009, greenhouse gas emission from the five affiliate companies totaled approximately 13.85 million tCO₂ and the third-party assurance is planned to take place before the execution of the greenhouse gas and Energy Target Scheme in 2011.

GHG Inventory Process



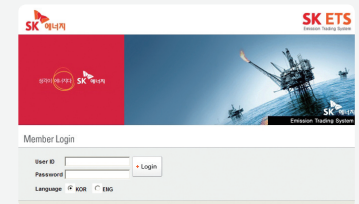
SK energy and SK chemicals established an IT-based greenhouse gas inventory system. Also, SK telecom and SKC is planning to complete the establishment of their own IT systems by the end of 2010. SK is planning to expand the establishment of greenhouse gas inventory to the entire group in the future.

GHG Emission of Each Affiliate

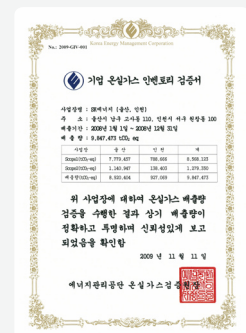
Unit : 10,000 tCO₂

	2007	2008	2009
SK energy	936	985	1,001
SK chemicals	49	44	48
SKC	74	74	74
SK telecom	46	53	53
K-Power	143	135	209
Total	1,248	1,291	1,385

SK energy IT-based GHG Inventory System



GHG Inventory Assurance Statement

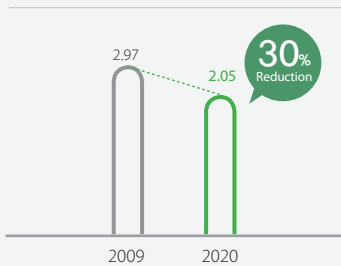


Efficient Reduction of Greenhouse Gas Emission

Evaluation of Reduction Potential and Establishment of Reduction Target

■ GHG Reduction Target of Business Site

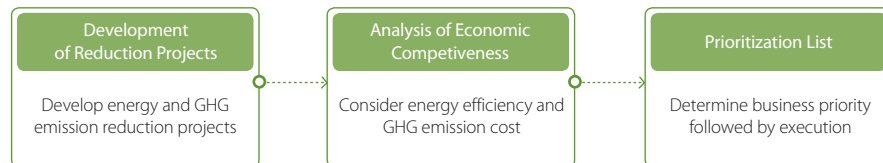
Unit : tCO₂/billion KRW



In order to establish the Group-wide reduction target of greenhouse gas emission at business sites, SK evaluated the amounts of greenhouse gas emission (assuming business as usual) and reduction potential in 2020. As the nation-level allocation scheme for the industries' greenhouse gas reduction requirement and the initiation of the greenhouse gas and Energy Target Scheme are currently underway, SK has decided to reduce 30% of greenhouse gas emission (compared to the assumption of business as usual) in terms of the CO₂ emission per sales in KRW by 2020 (setting 2009 as the base year).

Based on the greenhouse gas inventory already developed to calculate the emission reduction potential and the emission data, SK analyzed the current emission status of each process and site to screen feasible greenhouse gas emission reduction projects, such as energy saving projects. SK then estimated the emission reduction potential, assessed the economic feasibility of the emission reduction projects, and prioritized the list.

Calculation Process of GHG Reduction Potential



SK was challenged to establish greenhouse gas emission reduction target by analyzing the trends of domestic and foreign government policies, estimating the amount of reduction for each site, evaluating the amount of reduction potential, and assessing the estimated sales of the participating affiliate companies. Furthermore, SK is putting continuous and utmost effort towards greenhouse gas reduction and climate change response from a long-term perspective by means of establishing a Group-level action strategy for achieving the 2020 reduction target as CO₂ emission per sales in KRW.

Through the extended discussion of CDM (Clean Development Mechanism) projects, which resulted from sharing of affiliate companies' greenhouse gas reduction options, and carbon fund, SK developed a cost-effective Group-wide greenhouse gas reduction regulation. SK also plans to consider the cost reduction effect per tCO₂ reflecting carbon value when reviewing the economic evaluation of investment in the on-site energy efficiency improvement and greenhouse gas reduction facilities, in addition to the existing ROI (return on investment) evaluation focused on the energy cost reduction effect; in 2011, SK plans to present the Group-level carbon value application guideline.

■ CDM (Clean Development Mechanism)

CDM is an arrangement under the Kyoto Protocol allowing industrialized countries with greenhouse gas reduction commitment to invest in projects that reduce emission in developing countries as an alternative to more expensive emission reductions in their own countries. Industrialized countries can benefit from acquiring CERs and developing countries can benefit from receiving technological and financial aid. Since 2005, developing countries have also been allowed to invest in CDM projects.

Major Greenhouse Gas Emission Reduction Programs

SK is putting multi-directional efforts into providing solutions for climate change mitigation, which is also a global issue. SK is carrying out voluntary reduction activities such as registering greenhouse gas reduction linked to the SK's climate change response strategy, acquiring domestic and foreign carbon credits through participation in CDM projects, process improvement, and participating in pilot projects.

Internal Emissions Trading Scheme

..... In 2007, SK energy set up a computerized system for calculating and controlling in-house greenhouse gas emission, which is now being used in the Ulsan and Incheon complexes. Using the system, SK energy introduced an internal emissions trading scheme in 2008 for the first time in Korea and began the operation of an integrated, company-wide emissions trading scheme in 2009. Based on the accumulated experience of operating the company-wide scheme, SK energy designed the basic system to introduce the Group-level emissions trading scheme in 2010; furthermore, SK energy executed the emissions trading workshop together with five affiliate companies of the SK and Korea East-West Power Co., Ltd. In the future, SK will continue to carry out effective Group-level greenhouse gas reduction activities through step-by-step increase of the number of participating affiliate companies.

Securing of Domestic and Foreign Carbon Credits

..... The three affiliate companies including SK energy, SK chemicals, and SKC registered 12 KCERs (Korea Certified Emission Reductions) in total; in case of SK E&S, the company is seeking to secure CERs through its fuel-switching (from bunker C oil to LNG) CDM projects. Furthermore, SK energy is trying to obtain CERs through effective utilization of the carbon fund that the company launched for the first time in Korea.

Certified Emission Reduction (KCEs)

Affiliate Company	Project	Expected Amount of Reduction per Year (tCO ₂)	Period
SK energy	LFG project at Seongam Landfill in Ulsan	101,475	2006~2010
SK energy	CO ₂ emission reduction project through waste heat recovery process from power boiler	3,588	2008~2012
SK energy	CO ₂ emission reduction through high-performance tray installation in petrochemical separation process	3,126	2007~2011
SK energy	CO ₂ emission reduction with fuel switch (bunker C oil to LNG) process of boiler/heating furnace	115,091	2008~2013
SK energy	CO ₂ emission reduction as a result of fuel consumption reduction by using wet based oxidization process in waste water treatment system	10,250	2009~2014
SK energy	CO ₂ emission reduction via steam generation using recovered heat achieved by hot separator installation in #1 HDT process	4,890	2010~2014
SK energy	CO ₂ emission reduction via fuel consumption reduction achieved by new heat exchanger installation which lead to increased feed temperature in #2REF settling tower	2,872	2008~2013
SK energy	CO ₂ emission reduction through steam import from a neighboring factory for polymer power boiler resulting in reduced fuel consumption	13,887	2009~2014
SK chemicals	Utilizing surplus biogas recycled from wastewater treatment plant	4,126	2006~2011
SKC	CO ₂ emission reduction via using biological wastewater treatment which lead to fuel consumption reduction for incinerators	14,115	2008~2013
SKC	GHG emission reduction through waste heat recovery in HPPO process which lead to steam consumption reduction	14,998	2010~2015
SKC	CO ₂ emission reduction through the installation of cross-site waste heat supply network which enables substitution of fossil fuel	26,201	2009~2014

SK energy Emissions Trading Workshop



Emissions Trading Workshop between SK and Korea East-West Power Co., Ltd.



CER (Certified Emission Reduction)

Emission reduction performance generated under regulatory measures such as CDM

■ Eco Green Boiler



■ LFG-to-Energy Facility for Seongam Landfill in Ulsan



■ SK chemicals Energy Efficiency Project

폐열도 재활용... 5년간 234억원 아꼈다



■ Certification of GHG Emission Reduction Project



■ Green Data Center



Efficient Reduction of Greenhouse Gas

Energy & Chemicals

Boiler Powered by Non-Fossil Fuel: Eco Green Boiler SK chemicals has established a greenhouse gas reduction strategy that changes the current boiler system, which is currently powered by fossil fuel, into the system that uses non-fossil fuel; SK chemicals has constructed and is operating Eco Green Boiler fueled with waste wood since 2009, through which the company is aiming to achieve its target of substituting 23% of its heat source with non-fossil fuel in 2010. The significance of Eco Green Boiler is further emphasized since it is the first boiler in Korea to utilize waste wood to generate steam.

LFG-Utilization Project at Seongam Landfill in Ulsan Since 2002, SK energy has been extracting and refining the landfill gas (LFG) generated in Seongam landfill, selling it to the incinerator plants in nearby cities and the petrochemical plants' industrial boiler as an alternative fuel to LNG. Through the LFG-utilization project, SK energy has achieved not only greenhouse gas reduction but also development of alternative energy, early stabilization of landfill, and elimination of odors.

Improvement of Steam Lines In order to improve steam lines with leakage problems, SK chemicals enhanced the production efficiency through strict control of leakage rate and reduced the steam consumption through the reuse of waste heat generated during chemical reaction process. Along with these two methods, SK executed thorough command and control of the process renovation and efficient process improvement, all of which led to the reduction of steam evaporated into the air. Regarding the waste heat reuse, SK chemicals contributed to greenhouse gas emission reduction by installing pipelines that exclusively collect waste heat, reusing the heat that is otherwise wasted, and thus increasing energy efficiency and saving fuels.

Gas Reuse from Wastewater Treatment Plants SK chemicals prepared a system that transforms methane generated during wastewater treatment process into fuel that creates steam, to be used for its own boiler. Furthermore, the company utilized methane generated in Ulsan wastewater treatment plant as fuel for the boiler and achieved both environmental protection and energy savings by reusing the greenhouse gas emission, and methane that would have otherwise been emitted into the atmosphere. Use of methane from Ulsan wastewater treatment plant has been registered under the government's greenhouse gas emission reduction project as the 'Reuse Project of Surplus Biogas from Wastewater Treatment Plant' and resulted in the reduction of approximately 12,000 tCO₂ from 2007 to 2009.

Information & Telecommunications

Construction of Green Data Center As the greening of data center is the key issue of IT service industry today, SK C&C is carrying out four major tasks including cooling efficiency improvement, electricity efficiency improvement, energy use management, and greening of buildings as part of its green IT business. From now on, the company will establish and apply the Green IT Architecture Standard to increase energy efficiency of IT equipments, energy efficiency utilizing IT, and support of green IT technology in all of its IT service business.

Marketing & Logistics, Services

Pilot Project for Greenhouse Gas Reduction 'Building Energy Target Scheme' selected 12 institutions that represent energy-intensive buildings by type, such as public facility, multi-complex, department store, hospital, research institute, communication hub, and hotel; WALKERHILL represented the hotel industry and signed an agreement with Ministry of Land, Transport and Maritime Affairs in April 2010. WALKERHILL plans to carry out various energy efficiency improvement projects to achieve the goal of the 1st project for greenhouse gas and Energy Target Scheme by 2014.

Resource Efficiency

Management of Resource Efficiency

Efficient management of resources leads to not only cost savings but also reduction of environmental pollution. For efficient management of resources, the affiliate companies of SK are systematically managing the data on resources and optimizing the resource efficiency, which means using the right resource at the right time.

Energy Use Energy use is managed based on nature of electricity supply, gas (LNG/by-product gas), fuel (heavy oil/diesel) and coal. The energy use data of 8 affiliate companies including SK energy, SK chemicals, SKC, SK gas, SK E&C, SK telecom, SK E&C, and K-Power was integrated.

Electricity Electricity use is increasing in general, but with a gentle slope on increasing trend.

Gas As for gas, LNG use is increasing at a constant rate and the by-product gas generated at SK energy is being used as fuel.
※ By-product gas : Combustible gas that contains hydrogen and hydrocarbon, which is a by-product of oil and petrochemical product manufacturing process

Fuel Heavy oil use accounts for approximately 98% of total fuel use; its use is on a decline.

Coal Amount of coal use is not significant, as coal is only used to fuel coal-powered boiler of SK chemicals; furthermore, coal use is decreasing overall, due to the increase in efficiency of SK chemicals's boiler.

Water Use SK is putting much effort into wastewater recycling along with management of water use; it has integrated and is now managing water data of 6 affiliate companies including SK energy, SK chemicals, SKC, SK telecom, SK E&C, and K-Power.

Water SK is trying to increase the recycling rate of used water as well as to decrease the amount of water used during process; as a result, the recycling rate has increased year after year.

Unit : 1,000 ton

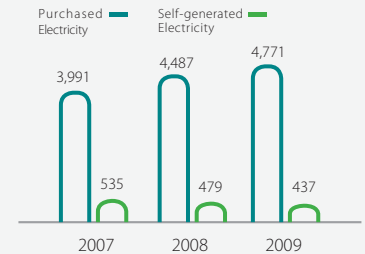
Type	2007	2008	2009
Water	51,341	55,432	60,114
Recycled water	3,359	3,692	4,389
Total	54,735	59,124	60,114

Unit : %

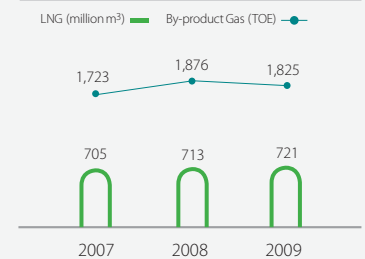
	2007	2008	2009
Water Recycling Rate	6.2	6.2	7.3

Electricity

Unit : GWh

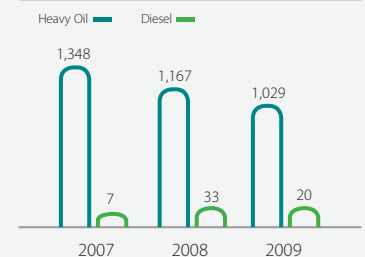


Gas



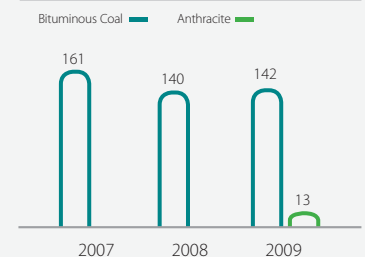
Fuel

Unit : million t



Coal

Unit : 1,000 ton



Resource Efficiency

Major Resource Use Reduction Program and Performance

Management of Material Flow SK E&C has been investigating the material flow for an efficient energy use and waste management since 2007. SK E&C started pilot projects in the fields of such as civil businesses, housing & building, petrochemical plant businesses at 16 major business sites in 2007. The targeted business sites for survey on resource flow were expanded to the entire domestic construction sites since 2008.

Joint Construction and Operation of Industrial Water Supply Facility Both SK energy Ulsan CLX and SKC Ulsan factory identified difficulties in securing industrial water in the course of building new manufacturing process due to the geographical condition of the sites. To deal with this problem, SK energy and SKC combined two pipelines into one and are jointly managing it. SK energy and SKC accomplished reduction of investment and operation costs through combined installation of supply facility of industrial water.

Reduction of Water Consumption at Office Building SK telecom mainly monitors the water consumption at its office buildings. SK telecom carried out various water conservation efforts in 2009; the company lowered the water pressure at its offices, switched to water-saving toilet valves, and installed drift eliminators in cooling towers. As a result, SK telecom was able to cut 3,658m³ of water consumption, a 0.797m³ reduction per person. In 2010, the company will switch to water-saving toilet valves at 17 office buildings and continue to raise employee awareness about the importance of water conservation.

Efficient Use of Water For efficient use of water, SK E&C increasingly applies a water recycling system, which purifies and uses less polluted water such as groundwater, rainwater and graywater. This allows the securing of recycled water and increases water circulation.

■ Industrial Water Joint Supply Facility



Category	Characteristic
Rainwater and groundwater	Landscape gardening, tree-planting on top of buildings and installing aquatic biotope within landscape equipment on low floors and recycling through a rainwater processing facility after the first filtering
Graywater	Utilize wash water or showered water that have low degree of contamination for gardening and toilets after it goes through graywater reuse system

Waste Management

SK is reducing the amount of material use by preventing the pollutants generation across the entire process from material input to the final production, and reusing or recycling the waste.

Waste Generation and Recycling Rate ·····SK encourages voluntary reduction by diminishing waste generation and increasing the recycling rate and by sharing performances of emission.

Unit : ton			
Type	2007	2008	2009
General waste	124,185	326,561	329,702
Designated waste	45,914	61,259	59,976
Total	170,099	387,819	389,678

Unit : %			
	2007	2008	2009
Waste recycling rate	67.2	73.4	76.8

Efforts for Expansion of Waste Recycling

Waste Management at Business Sites ·····SK continuously makes effort to minimize waste generation at business sites by recycling thoroughly and to develop means of recycling waste and turning waste into energy. Especially, affiliate companies in the manufacturing industry including SK energy operate waste management system to increase work efficiency of departments that generates waste and those in charge for treatment. It is also engaged in sharing information on the results of waste generation and disposal. By doing so, awareness level amongst employees is raised and they voluntarily involve in waste management and reduction.

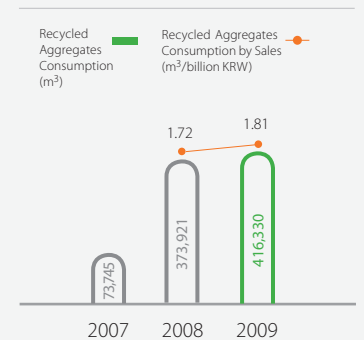
Use of Recycled Aggregates ·····For green construction, SK E&C actively uses recycled aggregates obtained by recycling construction waste, which represents 28% of the entire aggregates in 2008 and 2009. In case of mold, the cast for building concrete structures, we use gang form, steel or aluminum mold that allows more use than plywood mold or euroform, thereby reducing construction waste (waste wood). SK E&C used such alternative mold for 28% of the entire molds used.

■ Amount of Waste Treated per Disposal Method

Unit : ton			
	2007	2008	2009
Recycle	14,390	284,761	299,174
Landfill	17,898	45,307	33,341
Incineration	12,727	33,157	27,868
Other	25,084	24,594	29,295
Total	170,099	387,819	389,678

※ Corresponding affiliates : SK energy, SK chemicals, SKC, SK telecom, SK E&C, K-Power

■ Recycled Aggregates Consumption



Management of Environmental Pollution and Chemical Substances

Management of Environmental Pollution

SK continuously executes pollutant-reducing activities tailored to each affiliate companies' business characteristics. This is achieved through environmental investment, which replaces and improves the facilities and processes. During product development and production activities, efforts to reduce pollutant emission are made to thereby minimize hazardous substances released to the environment.

Pollutants Control SK creates environmental performance by actively participating in environmental activities and is also improving quality for both air and water in terms of pollutants control.

■ Air Pollutants Emission Amount

Unit : ton

Pollutant	2007	2008	2009
NOx	8,573	7,653	6,844
SOx	11,339	9,856	9,462
Dust	2,701	1,580	1,499

※ Corresponding affiliates : SK energy, SK chemicals, SKC, K-Power



Emission of air pollutants such as NOx, SOx, and dust were continuously reduced, showing an effort to reduce air pollution.

Activities for Preventing Air Pollution: In order to prevent air pollution and minimize emission of air pollutants, SK's each affiliate company established diverse facilities and promoted clean production which helps to conserve natural environment.

Affiliates	Air Pollution Preventive Activity	Activity Details
SK energy	Installation of Low NOx Burner	Combustion of nitrogen gas
	Improving efficiency of the dust collector	Improvement in dust removal capability
	Installation of SO ₂ Scrubber	Installation of sulfide gas collecting apparatus
	Use clean fuel for power generation boiler	Minimization of pollutants generated from incineration
	Introduction of steam condensed water recovery system	Fuel use reduction
SK chemicals	Converting gas generated from on-site waste water treatment to energy	Zero emission of methane gas
SKC	Installation of Low NOx Burner	Combustion of nitrogen gas
	Additional treatment for bio disposal of high concentration waste water	Reduction of pollutants generation compared to incineration Production of biogas and conversion into energy source
K-Power	Removal of thermal NOx and yellow smoke	Improvement of gas turbine operations process



While SK has continuously made effort to improve water quality, it tends to be negatively affected by increase in production. Since increase in production involves larger volume of water use, the corresponding volume of wastewater is not small; therefore, while the concentration of pollutants in wastewater is expressed in ppm, the total volume is significant enough to be expressed in tons.

Pollutant	2007	2008	2009
Wastewater (1,000 ton)	14,484	15,223	16,300
BOD (ton)	68.4	77.2	66.6
COD (ton)	156.7	180.3	193.1
TSS (ton)	98.5	93.7	116.3
T-N (ton)	129.7	153.7	79.6
T-P (ton)	7.0	5.4	5.5

※ Corresponding affiliates : SK energy, SK chemicals, SKC, SK E&C, K-Power

Management of Chemical Substances

In order to assure eco-friendliness of products, SK plans to manage all chemical substances used for production or use, and makes its effort to prevent the impacts of hazardous elements for all clients and members.

Management of Hazardous Chemical Substances ···· SK energy signed a voluntary agreement with the government to lower the discharge of chemical substances. The reduction in our discharge volume in 2007 surpassed our target by 55%. Our sites were acknowledged as exemplary case for exceeding our target in the interim evaluation related to the voluntary agreement.

SK energy provides employees with information on toxic chemicals used in our business sites via the SK e-MSDS based on the international standards of the globally harmonized system of classification and labeling of chemicals (GHS). The information is provided in 16 categories, including the producer of each chemical, hazard identification and first aid guides. In 2007, SK energy established our own chemical management system for stricter management of the chemical substances imported, produced, sold and used in the course of its normal business operations. In addition, SK chemicals manages related information through SHEQ (Safety Healthy Environment Quality) system.

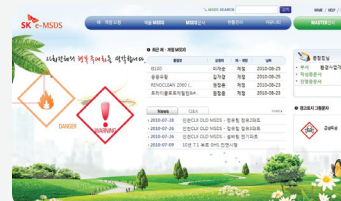
Compliance with Regulation on Chemical Substances ···· SK, focusing on the manufacturers, proactively responds to REACH and GHS which represent major regulations on chemicals in the world.

REACH REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) is a new European Community Regulation on chemicals and its safe usage. While SK energy is in process of preparing for registration of 29 substances among 44 pre-registered substances, SK chemicals does not have any substances regulated by REACH; however, CHDM produced by SK NJC, a subsidiary of SK, is on the REACH list, and registration process for CHDM is almost completed.

GHS GHS (Globally Harmonized System of Classification and Labeling of Chemicals) contains Label and MSDS (Material Safety Data Sheet) which display a hazard of substances with pictogram, and different timeframes have been set for single substance and mixture. SK energy completed compliance of its product substances with GHS; however, used substances are under review. Also, SK chemicals completed compliance with GHS for its 143 single substances, and are currently on sale.

Amount of Products Imported and Produced from EU	Registration Due Date
Single substance	~ June 30, 2010
Mixture which is composed of more than two single substances	~ June 30, 2013

SK e-MSDS



SK chemicals SHEQ System



Registration Timeline of REACH Substances

Amount of Product/Import from EU	Registration Date
Substance of 1,000 tons and more	~ Nov. 30, 2010
Substance of 100~1,000 tons	~ May 31, 2013
Substance of 1~100 tons	~ May 31, 2018

Classification of Hazard & Risk by GHS Criteria



Green Win-Win

■ SUPEX Roundtable

(August 2010)

"In order to develop their own competitiveness both SMEs and common people should be taught the skills of fishing instead of ... this approach would enable fundamental improvement and internalization.

- Chairman & CEO, Chey Tae-won

■ SK's Green Win-Win Activities Status

Category	Win-win management activities (collective)	Green win-win activities
Win-win	<ul style="list-style-type: none"> Fair trade/Ethical management agreement Invite and reward partner companies 	<ul style="list-style-type: none"> Green win-win cooperation between large corporations and SMEs (SK energy) Green procurement (SK E&C, etc)
Technology	<ul style="list-style-type: none"> Joint technology development Development of human resource and technology 	<ul style="list-style-type: none"> Joint environmental research and technology development (SK energy)
Education	<ul style="list-style-type: none"> SK Win-Win Academy (CEO, intermediate manager, etc) 	<ul style="list-style-type: none"> On-site environmental/technology education (SK energy, SK E&C) On line environmental management education (SK telecom)
Finance	<ul style="list-style-type: none"> Support investment fund Cash payment/Payment date reduction 	

■ 'Green Win-Win' between SK energy and Aekyung Petrochemical



Building Green Win-Win Partnership with Business Partners

For the first time in Korea, SK created the Group-wide win-win management system for business partners in 2006. Since then SK has been executing and stipulating systematic win-win management. By taking advantage of existing win-win management system, SK enhances the capabilities for green management of the business partners and is planning to establish low-carbon based SCEM (Supply Chain Environmental Management).

SK Green Win-Win Major Direction Green win-win partnership is to support an establishment of green management system through exchange of know-how and green technology between parent company and partner companies. It expands its support for green field on technology, human resources, and education in accordance to Culture, Process, and Product through the SK Win-Win Management Committee and SK Win-Win Academy. Win-win partnership will expand its support to secure capabilities and comply with regulations for the entire product processes such as carbon footprint labeling, CDP (Carbon Disclosure Project), carbon tax, green building, carbon neutral, and EuP (Eco-design).

SK Status of Green Win-Win Activities and Plan SK is planning to expand its green win-win activities from certain affiliate companies to the entire Group. In order to help in establishing low-carbon green management system of partner companies, SK is supporting these companies to develop the system for greenhouse gas inventory. In addition, SK will promote Green Partner for building eco-friendly supply chain and 'Green Credit' which accredit parts of greenhouse gas emission reduction by SMEs as a large corporations' performance.

Green Win-Win between SK energy and Aekyung Petrochemical In 2009, SK energy and Aekyung Petrochemical jointly initiated operation of production line utilizing waste resources. As Aekyung Petrochemical supplies 40 tons of waste heat steam, SK energy's polymer factory is now able to save approximately 23 million liters of bunker C oil, which had been used to fuel the production facilities, and also reduce 75,000 tCO₂ of greenhouse gas emission. Through such win-win cooperation, SK energy and Aekyung Petrochemical are expecting cost savings and additional profits of 10 billion KRW every year as well as greenhouse gas reduction effect.

Supporting for Business Partners and Developing Countries

Regarding a response to climate change, SK plans and executes to help partner companies and developing countries. SK energy was commissioned by the government to support projects between Korea and developing countries targeting the three Southeast Asian countries – Vietnam, Malaysia, and Thailand – to develop renewable energy and CDM projects. Utilizing the existing network between nations as the base, SK plans to expand its network to the industry level to develop joint research and investment.

Green Procurement

Green procurement is defined as purchasing device or product which does not contain environmentally hazardous substances. However, its definition has expanded to refer to gradually reducing rate of environmental hazardous substance use and purchasing products with high energy efficiency. Currently, most affiliate companies mainly purchase consumable goods, but the scope of purchase is gradually extending.

Unit : million KRW

	2007	2008	2009
Green Procurement	5,648	13,992	24,768

※ Corresponding affiliates : SK energy, SK chemicals, SKC, SK telecom, SK E&C

※ SK has been managing green procurement results since 2008

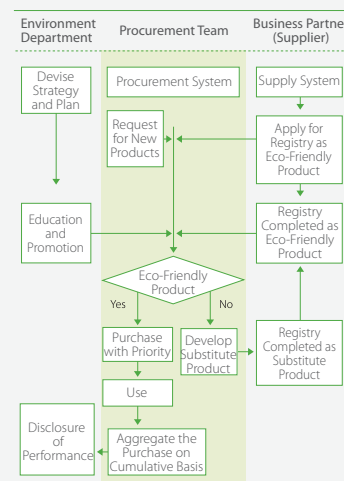
Activities for Green Procurement Among SK affiliate companies, SK energy, SKC, SK gas, and SK telecom participated in 'Voluntary Agreement for Green Procurement' led by Ministry of Environment, publicly expressing its will to implement green procurement.

Since its first participation, SKC established green procurement guideline in 2006, and will develop green procurement system in 2010. In 2009, SKC spent 17.3 billion KRW to buy products approved with Eco-Label and eco-friendly materials, as it continuously makes its effort to expand green procurement.

SK telecom spent approximately 4.25 billion KRW to buy 89 items including products approved with Eco-Label, Good Recycled Label, and Energy Saving Label in 2009. SK telecom has continuously modified green procurement system since signing a voluntary agreement with Ministry of Environment for the expansion of green procurement in 2005.

As part of the 2008 green procurement system development efforts, SK E&C established 'Green Procurement Process' which is a procurement implementation procedure that covers every step from the search for eco-friendly materials to its usage. Furthermore, under the company's own green procurement guideline, it has prioritized products approved as eco-friendly while purchasing since 2009 in case of construction materials. The company no longer arranges enforcement plans for each business sector. With regard to plant equipments, additional evaluation points are given to the plant suppliers with ISO14001 and necessary support and promotional assistance are also provided to them. The plan is to reinforce promotion and support for business partners so that environmental management is incorporated into their business practices.

■ SK E&C Green Procurement Process



■ Supporting Program for the Developing Countries

Program led by the Korean government that entails support for and cooperation with developing nations. The purpose is to partake in the international community's response to climate change, boost negotiating power to prepare for talks on greenhouse gas reduction, and help Korean firms' enter into developing markets.

Green Product

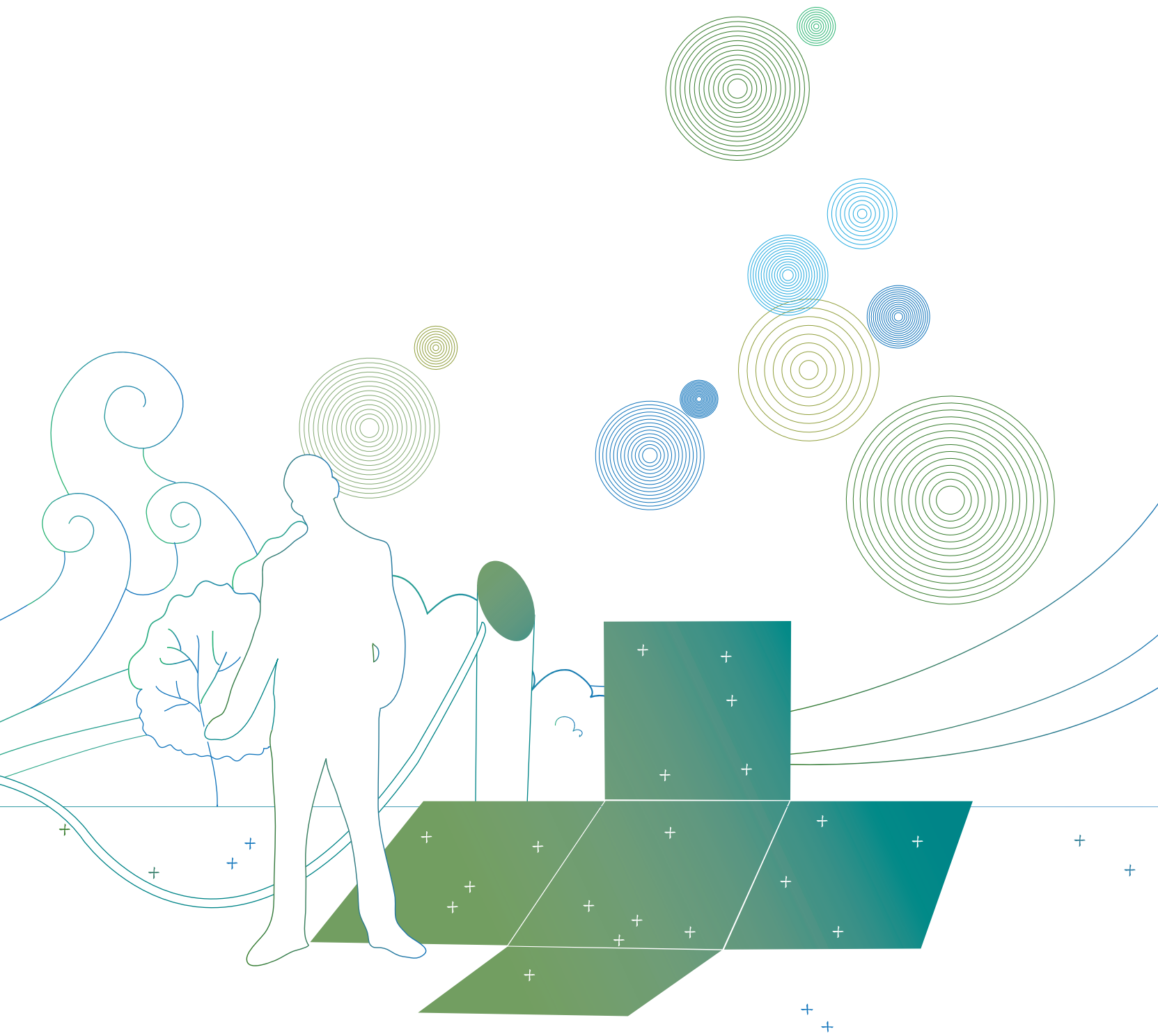


Green Product, More Creative

Green R&D creates future happiness.

Making products and services greener to realize a green society

SK creates happiness by becoming more creative to produce greener products.



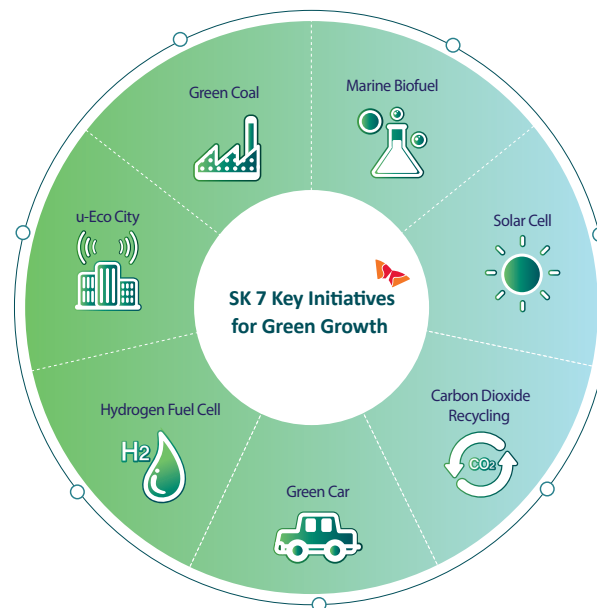
We should not rest on research for the sake of research, for the purpose of corporate research lies in business development. Once considered viable to lead to successful business, R&D should be pursued from a long-term perspective of 10, 20 years.

- The late former Chairman & CEO, Chey Jong-hyun

Development of Green Technology

To secure future competitiveness, SK plans to pioneer the Green Ocean based on the green growth and R&D as key drivers for the next generation. SK is also making effort to become the world's market leader in green technology.

Under the goal of 'Leap to become a Global Company that Takes a Lead Low Carbon, Green Growth Era,' SK set '7 Key Initiatives for Green Growth' including development of green coal, marine biofuel, and solar cell. SK is sharing and promoting the Initiatives within the Group by pursuing green technology and green management to protect the environment and contribute to a higher standard of life.



SK will take a lead 'Low Carbon, Green Growth' by investing a total amount of 1 trillion KRW in R&D and projects closely related to the 7 Key Initiatives for Green Growth until 2010 and gradually expand its investment by 2015.

Strategy to Promote Green R&D SK's technology management is 'R&BD (Research and Business Development)', which reflects SK's research philosophy that academic research should lead to business development. This philosophy is embedded in SK's global activities for developing new businesses applying the 'Green Technology.' Technology Innovation Center (TIC) of SK can be seen as one of the solutions for development of such technology based business, reflecting the philosophy.

Also, SK actively utilizes diverse ideas and technology from both internal R&D department and other external organizations by pursuing the 'Open Innovation' which is an enforcing strategy for an open R&D with internal and external ideas and support. SK plans to invest a total of 5.7 trillion KRW in R&D by 2012 and is making multi-directional effort by setting a goal to be a global leading company in the era of 'Low Carbon, Green Growth'.

Green Technology SK

Green Coal While coal is the only resource that can substitute oil and natural gas due to its abundant reserves, it has a problem of emitting excessive amount of hazardous substances and CO₂. Green coal technology can effectively remove hazardous substances through gasification process and converting low-quality coal into synthetic oil, gas, and chemical products at the same time. However, existing gasification technology requires high investment cost and results in a large volume of CO₂ emission. To resolve this problem, development of a new technology is in process with the aim of lower investment cost and significantly less CO₂ emission.

Marine Biofuel Marine biofuel is a technology that produces biobutanol through various processes utilizing marine biomass such as seaweed as raw materials. Biobutanol is considered the next-generation fuel which can be supplied through existing oil pipeline because it generates more heat than ethanol and is compatible with oil when transporting. Although development of marine biofuel from seaweed is more difficult than using agricultural crops, it is considered a future source of sustainable energy due to its unique traits and wide acreage of cultivation.

Solar Cell Photovoltaics is a technology that converts solar ray into electric power by using a semiconductor device, solar cell. Solar cells are grouped into 'silicone solar cells' and 'thin-film solar cell' depending on the material used to manufacture the cell. SK energy strives to develop a unique technology for 'thin-film solar cell' which can be differentiated in the market. SK puts effort into reducing production cost through the mass production technology in parallel with securing the mass production technology. SK energy also concentrates its effort to improve its competitiveness of solar cell by developing both joint and independent technology.

Carbon Dioxide Recycling Green Pol™, eco-friendly plastic made by capturing CO₂, can potentially substitute the existing plastic products such as polyethylene, polypropylene, and polyvinyl chloride. In 2008, SK energy obtained a patent for highly active catalyst technology which converts CO₂ into carbon compounds, successfully constructed pilot plant in 2009, and is currently in progress to commercialize it. Due to its transparency and impermeability of gas, Green Pol™ can be used for package wraps and food containers. As an eco-friendly material, it also has other advantages such as utilizing CO₂ as its resource and not emitting soot or hazardous gases from combustion process.

Green Car SK energy successfully developed medium or large-sized batteries with the world's best power output and energy density such as HEV (Hydro Electric Vehicle), PHEV (Plug-in Hybrid Electric Vehicle), and EV (Electric Vehicle) in the field of green car. The benefits of SK batteries are 10 year-long durability even under severe operation conditions and high level of safety. It was officially chosen as the battery supplier for commercial hybrid vehicle for Mitsubishi Fuso, part of the Daimler Group based in Germany, in October last year. In July 2009, it was also selected as the battery supplier of both i10-based mass production model and the next model, which are the first high speed electric vehicle of Hyundai Kia Automotive Group. These achievements demonstrate that quality and technology of SK energy are highly acknowledged by domestic and international automobile industries. SK energy is the only company in the world that has core manufacturing technology of both material and battery/battery pack such as lithium-ion batteries, LiBS (Li-ion Secondary Battery Separator), and battery pack module.

■ Green Coal



■ Marine Biofuel



■ Solar Cell



■ Carbon Dioxide Recycling



■ Green Car



Development of Green Technology

■ Hydrogen Fuel Cell

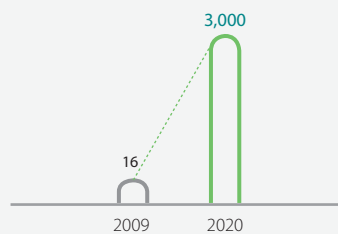


■ u-Eco City



■ Social GHG Emission Reduction

Unit : 10,000 tCO₂



Hydrogen Fuel Cell A core technology of hydrogen fuel cell, which generates electricity and heat by burning hydrogen, is divided into hydrogen production technology and hydrogen-consuming technology. SK energy developed hydrogen station technology for the first time in Korea which produces hydrogen from diverse resources such as LPG, LNG, and LFG and supplies them to energy resources of fuel cell vehicle. SK energy is also carrying out a pilot project of LFG-using hydrogen station in Sangam-dong. Since hydrogen is a clean fuel, which emits only water when it burns, and has high energy efficiency and various ranges of power output, it can be used in many applications including portable appliances, vehicles, spacecrafts, and power stations.

u-Eco City u-Eco City is a city that develops and operates urban management system of integrated technologies such as ubiquitous computing, cutting-edge information communication, renewable energy, and eco-friendly waste treatment. By combining green energy and information communication from SK and affiliate companies, SK implements the 'Independent Yet United' strategy. 'SK u-City' consortium, which includes SK energy, SK telecom, SK C&C, and SK E&C, has been taking part in the development of domestic and international u-Eco City since 2008. In order to meet the global standard, 'SK u-City' consortium also strives to secure core technology and spurs the development of u-service model tailored to the local by jointly participating with Cicso based in USA in development of high-tech cities in China.

Efforts for Reduction of Social Greenhouse Gas Emission

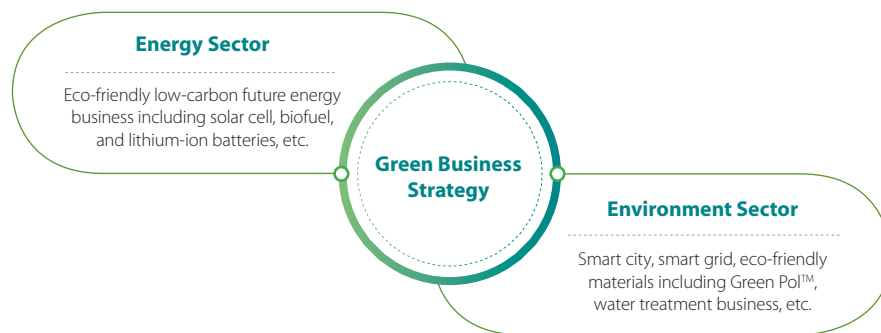
SK is planning to reduce around 30 million tons of the social greenhouse gas emission per year until 2020 by executing various green businesses such as green car, biofuel, solar cell, green coal, carbon dioxide recycling, u-Eco City, and LED.

Company	Eco-friendly Products
SK energy	Green car battery, biofuel, solar cell, green coal, Green PoI™
SK chemicals	Biodiesel
SKC	Polysilicon, LED
SK telecom	u-Eco City

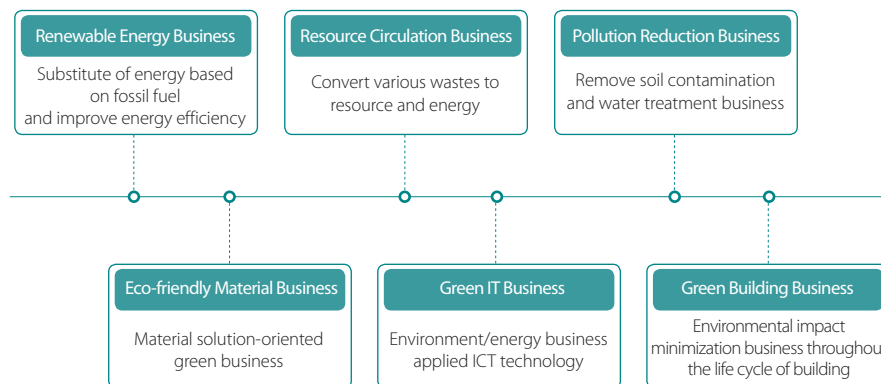
Promotion of Green Business

Green business, which is defined as an environment and energy related business, is originated from a rationale that we should conserve and care about our environment for our own happiness. SK not only strives to develop diverse green products and services based on the green technology, but also promotes various green businesses focusing on each affiliate companies' strengths and traits.

Strategy to Promote Green Business At the meeting for strategy development in July 2010 where all CEOs of SK affiliate companies participated, securing renewable energy (Energy), establishment of smart environment (Environment), and development of industrial innovation technology (Enabler) were selected as next-generation growth drivers and are being executed. SK plans to invest a total of 17.5 trillion KRW in 3E core businesses until 2020. Especially, SK will invest a total of 8.7 trillion KRW in Energy and Environment which are categorized as green business of core businesses, thereby creating approximately 20,000 jobs.



Green Business Green business, which is related to environment and energy and has been promoted by SK's each affiliate company, can be categorized into renewable energy business, resource circulation business, pollution reduction business, eco-friendly material business, green IT business, and green building business.



■ 3E Core Businesses

Category	Environment	Energy	Enabler
Investment in 2010	200 billion KRW	400 billion KRW	700 billion KRW
Investment in 2011	450 billion KRW	450 billion KRW	800 billion KRW
Cumulative investment in 2020	4.2 trillion KRW	4.5 trillion KRW	8.8 trillion KRW
Cumulative jobs	11,000	9,000	22,000



Green Business Areas

Promotion of Green Business

Renewable Energy Business

As of 2006, the energy consumption in the world is 11.7 billion TOE, in which the sources of the energy from oil, coal, and natural gas amounts to 80%. It is imperative to develop and use new energy technology that is clean, renewable, and unexhausted in today's fossil fuel-oriented society. As the largest company involved in energy-related business in Korea, SK concentrates on these matters and plans to promote diverse businesses related to renewable energy.

Biodiesel Using PFAD (Palm Fatty Acid Distillate), a by-product from palm oil manufacturing, as raw material, SK chemicals's biodiesel business that started in 2007 in line with Korean government's policy to promote biofuel consumption currently possesses the largest market share in domestic biofuel market. With its own price competitiveness, SK chemicals could accomplish performance results that no other companies can catch up with. In particular, the use of PFAD, which is an inedible raw material, has its strength as it is more eco-friendly than other agricultural crops such as soy bean, which is more commonly used by other companies.

Solar Power Plant Acknowledging the importance of solar power generation, SK has operated solar power plants in Namwon, Gumi, and Youngam since 2008 with the annual power generation of 1,843 MWh.

Power Plant	Location	Completion Date of Construction	Capacity	Generation Capacity	Operator
Namwon Sarang power plant	Namwon, Jeollabuk-do	September 2008	657KW	997MWh/year	SK D&D
Sinheung solar power plant	Yeongam, Jeollanam-do	September 2008	440KW	590MWh/year	SK D&D
Gumi solar power plant	Gumi, Gyeongsangbuk-do	May 2008	200KW	256MWh/year	SK E&S

Solar Cell Film SK continuously strives to develop the base material for solar cells. In 2009, SKC successfully developed fluorinated film, which is a very important material for manufacturing solar cell module and the EVA (ethylene-vinyl-acetate) sheet film. As a result, SKC has become the first company in the world capable of supplying all three types of solar cell film including the polyester film. As the solar cell film was previously dominated by the American and Japanese manufacturers, this achievement was considered significant in terms of enhancing the domestic photovoltaic industry as well as resolving the insufficient supply problem. Based on this, SKC is continuously progressing toward becoming a leading company in solar cell film manufacturing by achieving sales of 500 billion KRW by 2015.

■ Biodiesel



■ Namwon Sarang Power Plant



■ Gumi Solar Power Plant

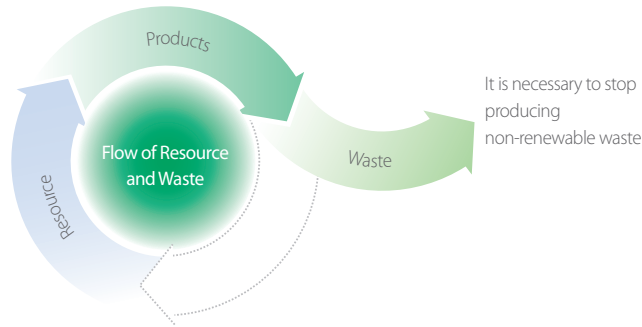


■ Production Process of Solar Cell Film (EVA)



Resource Circulation Business

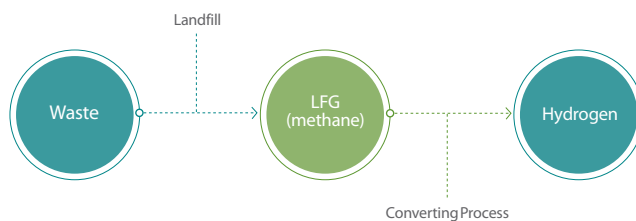
In the modern society, the amount of input resources and the resulting waste generation are both increasing fast. The waste treatment and disposal issue is at the core for the development of a sustainable society. SK has searched for ways to promote resource circulation-type projects such as converting waste into resources and energy, which also results in prevention of environmental pollution.



Pilot Project Converting Combustible Waste to Resource in Metropolitan Landfill The total volume of waste generated in Seoul and Gyeonggi and landfilled in Metropolitan Landfill amounts to 4.75 million tons. Among these, combustible wastes that are collected and converted into fuel become RDF (Refuse Derived Fuel). It can be used as a supplementary fuel in energy-intensive industries such as cement industry, or as a fuel for separate power facilities.

SK E&C has participated in construction project of MBT (Mechanical-Biological Treatment) facility and RDF manufacturing facility which were implemented as pilot projects involving resource recycling of combustible waste in metropolitan landfill for two consecutive years since 2007.

LFG Hydrogen Station Landfilled waste generates LFG (Landfill Gas) mostly consisting of methane as it is degraded, which can be easily converted into hydrogen through a certain process. SK energy and SK E&C participated in LFG hydrogen station project in Seoul World Cup Park led by the City of Seoul and have promoted using LFG as a resource. Through this project, SK energy is providing a method to produce hydrogen, which is a clean fuel, with landfilled waste; the concept of utilizing methane from LFG instead of letting it emitted into the air is considered very valuable in terms of reducing the global warming effect, since methane has greater global warming potential than CO₂.



■ Pilot Project of Combustible Waste Utilization



(MBT : 200 ton/day, RDF : 100 ton/day)

■ LFG Hydrogen Station



(Production capacity of hydrogen : 30 Nm³/hour)

Promotion of Green Business

Pollution Reduction Business

In order to treat and reduce pollutants of air, water, and soil that are inevitably generated during the industrial development, SK takes a lead to promote pollution reduction projects such as atmospheric environment improvement, solution to water pollution, and soil remediation.

Atmospheric Environment Improvement Business ····· In order to improve the atmospheric environment, SK E&C implemented an air pollutant reduction performance improvement project for the Nowon Resource Recovery Facility. Installation of bag filter and active carbon injection equipment for dioxin reduction, SNCR (Selective Non-catalytic Reaction) device and SCR (Selective Catalytic Reaction) device were also completed to remove nitrogen oxide. In order to promote green facility improvement project, Yeosu Thermal Power Plant Unit 2, which once used heavy oil for fuel, is now getting transformed into an economical green power plant with reduced pollutant emission and fuel costs by applying a circulating fluidized bed boiler.

SCR Catalyst ····· SCR (Selective Catalytic Reduction) is a technology that reduces NOx (nitrogen oxide) gases generated from power plants and incinerators. SK energy embarked on the R&D of SCR catalyst in 1996 and successfully commercialized the technology in 2001. Currently, it is applied to more than 100 sites at home and abroad including Germany and France, and is widely recognized for its excellent performance. In 2009, SK energy signed an agreement to export SCR technology to Huatuo, an environmental engineering company affiliated with the Huadian Group, a state-owned enterprise that is among the top five electricity providers of China.

Water Treatment Business ····· SK chemicals puts its effort into resolving water pollution by disseminating corrosion restrainer, spawn agent, and microbe culture medium. Corrosion restrainer prevents corrosion of pipeline and advance water use efficiency through increase of number of times recycled. Spawn agent is a biological agent which decomposes suspended particles in water through microbes by not generating any environmental pollution. Microbe culture medium proliferates and cultures valuable microbes in waste water, thereby improving efficiency of wastewater disposal.

Environmental Restoration (Soil Remediation) ····· Soil requires a considerable amount of time, effort and cost to remediate once polluted. For the past few decades, rapid industrialization and poor environmental awareness have caused contamination of soil in Korea with many types of harmful substances. Recently, the pollution has been confirmed in multiple locations of withdrawn US military bases, and led to a call for urgent soil remediation. Accordingly, SK energy and SK E&C currently implement remediation project for the withdrawn US military bases, based on the experience of carrying out soil remediation project performed under 'Voluntary Agreement for Soil Contamination Analysis and Remediation' signed between SK energy, SK E&C, and Ministry of Environment. With future city expansion plans that require continued development of commercial lands, SK E&C plans to increase the business value by combining soil remediation with development projects.

■ Yeosu Thermal Power Plant (Unit 2) Eco-Friendly Facility Improvement Project



■ Export Contract of SCR Catalyst Technology



Eco-friendly Material Business

Eco-friendly material is a material that emits less greenhouse gas than existing material for the entire procedures from selection of raw material to production, use, and disposal, and reduces environmental load and energy use. It has received growing attention, thereby becoming a driver for product commercialization of SK affiliate companies.

Biodegradable Film Skywel®, biodegradable film of SKC, is a film made from PLA (Poly Lactic Acid) extracted from plants. Unlike the conventional films which require more than 50 years in landfill to complete decomposition, it is more easily biodegraded where 100% degradation is achieved within only a couple of years. As it also reduces CO₂ generation significantly from combustion when compared to the combustion of conventional films, an eco-friendly life cycle from production to disposal is achieved by the use of Skywel®. SKC not only successfully developed and produced biodegradable film of snack package for the first time in the world, but also realized a stable supply based on accumulated experience of film manufacturing.

PETG Since PETG (Polyethylene Terephthalate) of SK chemicals is eco-friendly and highly functional resin which has high chemical resistance and transparency, it is used for containers and home appliances. It also does not contain environmental hormone-like substances, is 100% renewable, and releases only a small amount of hazardous substances when incinerated. SK chemicals achieved sales of 110 billion KRW through PETG during 2009. Especially when the earthquake hit Haiti, SK chemicals resolved drinking water problems by delivering watercone, which is an equipment to collect water made from PETG, for free. SK chemicals has developed highly heat-resistant PETG (ecozen) by using a corn extract-based substance and is currently selling it.

PPS SK chemicals produces PPS (Polyphenylene Sulfide) based on existing manufacturing process with melt polymerization, which is a modified manufacturing process that does not use solvent and does not generate by-product.

Sound-Absorbing Material SK chemicals is producing sound-absorbing material which is solely made of polyester fiber that is not toxic and 100% recyclable. It is used for building insulation like glass wool and styrofoam.

LED Light By acquiring Sum-ray, a company that specialized in lighting, in January 2010, SKC entered into the lighting business. SK telesys, a subsidiary of SKC, also recently provided LED light in Eunpyung Newtown and is planning to promote digital light based on wireless communication and convergence solution project.

LED Light



High-Tech Complex Streetlight in Eunpyung Newtown



■ Biodegradable Film

- Acquired environmental mark by Ministry of Environment
- Acquired biodegradability certification (KTR)
- Acquired USA FDA certification
- Acquired Europe EC certification
- Selected as the 10 new technologies in Korea in 2009

■ Biodegradable Film Skywel®



■ Watercone made with PETG Material



■ PPS

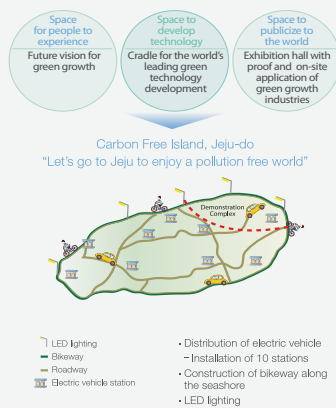


■ Sound-absorbing Material



Promotion of Green Project

■ Smart Grid Jeju Demonstration Complex Project



■ Status of ITS Project

Category	Project Status of SK C&C
Local ITS	Jeju ITS establishment project, Gwangju, Seoul, Ansan
Local UTIS	Bucheon, Gwachun, Yongin
MIS/BMS	Anyang, Jeju, Ansan, greater BIS for Southeast area
Overseas ITS	Baku, Azerbaijan / Ulaanbaatar, Mongolia
Other	TAGO, Jeju Telematics Pilot City

ITS (Intelligent Transport System) : An integrated road and traffic transportation system with electronic, information, telecommunication and control technologies for traffic condition improvement and safety.

■ Next-generation Green Network



Green IT Business

SK is actively promoting diverse business areas including environment and energy based on SK's strength in information and communication technology.

Smart Grid Smart Grid is an integrated system between traditional grid and new communication network that optimizes energy efficiency through real-time information exchange between suppliers and consumers. Since Korea has been recently chosen as a pilot country for smart grid business, SK energy, SK telecom, SK networks, and SK E&C participated in 'Smart Grid Jeju Demonstration Complex Project.' Through this project, SK is assisting Korean government with construction of basic infrastructure to achieve energy savings in each household by supplying them with smart devices that enable saving through the use of smart meter gauges, solar panels, rechargers for electronic vehicles, and intelligent control service. This also includes real-time power consumption monitoring service with energy saving mode option, electric vehicle recharge services, among others.

ITS Introduction of ITS ultimately aims to achieve systematic improvement in traffic flow and provide real-time transportation information through effective traffic flow dispersion. SK C&C has continuously carried out ITS businesses such as a nation-wide ITS pilot project and high-tech traffic model city (Jeju) since 2000. SK C&C also completely established TAGO (Transport Advice on GOing anywhere), which is an integrated traffic information system for public transportation led by Ministry of Land, Transport, and Marine Affairs and Jeju Telematics Pilot Project. Based on these successful experiences, SK C&C is actively pioneering into international markets as well.

Next-generation Green Network Technology SK telecom completely developed the total of four next-generation green network technologies including streetlight-type transponder, low-power amplifier, high efficiency solar-powered transponder, and green all-in-one antenna. SK telecom also established streetlight-type transponder in Gapyeong, Gyeonggi-do, for the first time in the world. SK telecom reduced 4,500 tCO₂ per year by applying low-power amplifier (GaN AMP), which reduces electricity consumption by 46%, to parts of existing transponder. High efficiency solar-powered transponder annually reduced 167 kgCO₂ per repeater center by improving energy efficiency by 50%. As green all-in-one antenna reduces number of antennas and is able to effectively control radiation at the same time, it is expected to improve aesthetical value and reduce electricity consumption.

Green Building Business

Aiming for energy savings and environmental conservation, SK is leading the promotion of green building, which minimizes environmental impact across all phases of life cycle of a building from design & construction, maintenance & control, and demolition.

Construction of Green Office Building SK E&C acquired pre-certification of green building with the nationally highest score in 2008 and received a first-grade energy efficiency on office building for the first time in Korea in 2010. Particularly regarding the construction of SK chemicals R&D Center, approximately 60 types of designs and technologies – such as roof greening, energy saving curtain walls, roll screens, and geothermal heat pump system – have been applied to optimize energy savings. This enables 30~50% of energy and water savings compared to existing office buildings. Acknowledged with such technological capability, SK E&C acquired pre-certification receiving the highest score (113 points) according to the national Green Building Certification Criteria (GBCC) review; prospectively, it plans to acquire principle certification upon completion of constructing buildings as well as LEED Platinum grade.

Green Technologies Applied to SK chemicals R&D Center

Category	Technology
Architecture	Energy saving curtain wall, roll screen, atrium
Landscape	Green shaft, biotopes living on earth
Equipment	Under-floor air distribution system, BIPV system, geothermal heat pump system, radiation cooling and heating system
Electricity	Internet phone, location recognition and PC security system, eco-friendly lighting



SKYHOME SK D&D is constructing green houses via SKYHOME, Korea's first house brand. In case of SKYHOME, SK D&D saved both the construction period and cost through modular method, which prepares basic framework, electric wiring, ondol (Korean floor-heating system), bathroom, etc. at manufacturing facilities and simply put together interiors and exteriors at the construction site. Compared to previous houses, materials are exquisitely made in terms of millimeters to prevent energy loss; SKYHOME saves 50% more heat compared to other apartment buildings due to the use of highly efficient windows, doors, and insulation materials and, in addition, waste generation has been significantly reduced.

SKYHOME Construction Process



Construction in Factory



Transportation



On-site Construction



Exterior Construction

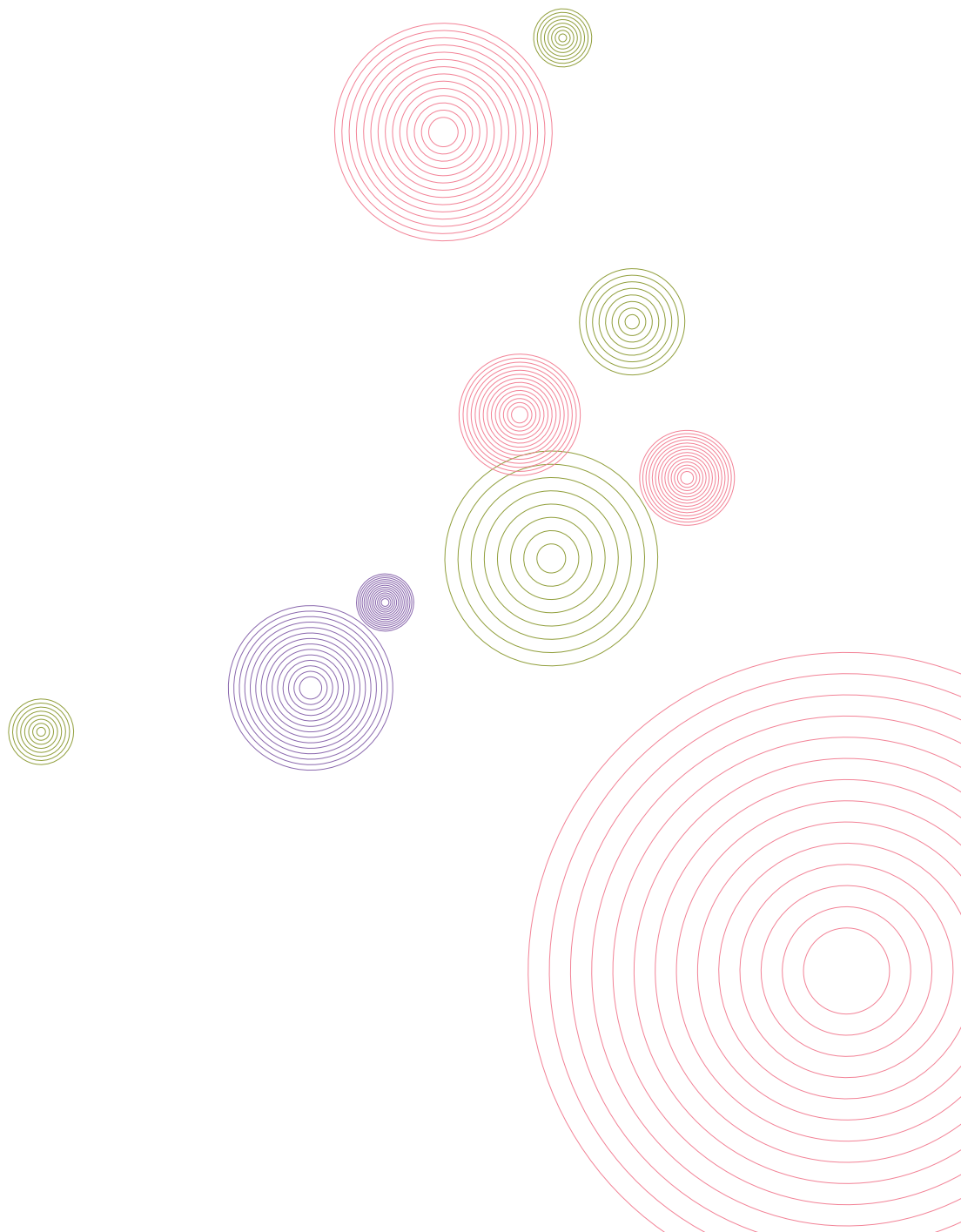


Completion of Construction

■ SKYHOME



Appendix



Third-Party Review

SK Group has made a very significant and desirable attempt in combining the low-carbon green management activities of its 12 affiliate companies into one environmental report. Although a number of Korean companies have published either an environmental report or a sustainability report since the mid-1990s, very few have published a Group-level report, making this attempt even more significant.

Content-wise, the fact that this report truly reflects the current trends of sustainable development and 'Low Carbon, Green Growth' warrants a high degree of recognition and, as mentioned in the CEO's Message, its efforts to enhance the inherent value of the environment through the environmental management is a step in the right direction. Furthermore, the system established to support this direction such as SK Environment and R&D Committee and Environment Committees of individual affiliate companies seems to indicate a strong Group-wide will toward a harmonious development of both the environment and the economy.

As it is commonly acknowledged, the key issue of corporate management in the 21st century is the dialogue with stakeholders. Considering that environmental management activities in particular involves finding solutions through partnership with various stakeholders, the fact that this report is based on the stakeholder engagement and materiality test is further highlighted. On the other hand, the approach to realizing the Group's green management vision focusing on the three key areas of Green Culture, Green Process, and Green Product well reflects the Group's commitment to connect the environment with its core values.

From the point of view of the readers who encounter this environmental report, the fact that SK has established a connection between the values that the entire Group strives toward and the quantified results of specific activities by systematically containing the environmental management performances in three categories would be impressive.

Despite a number of benefits, SK Group Environmental Report is not without its own limitations and there is room for further improvement. First and foremost, although the Group-level Environment and R&D Committee is under operation, environmental management-related function is not reflected in the governance of the Board of Directors, a main decision-making organization when considering that SK is a global corporation. More specific areas of improvements include expressing the efficient management results of energy, water, and waste in terms of greenhouse gas reduction effect in the Resource Efficiency section, interpreting and expressing environmental cost and investment activities in terms of accounting information from carbon management perspective, and promoting strategies to actively divert the chemicals management activities into green chemical industry.

For any company, it is difficult to perfectly contain a wide range of corporate activities in limited pages and completely satisfy the expectations of all stakeholders. Considering this, SK Group's first environmental report is an achievement befitting the Group's reputation. I would like to praise the will of the Group's employees who have put much effort to corporate greening. In conclusion, I expect this report to be a reference to other companies and bring positive dissemination effect to developing Korean industries' environmental management.



Byung-Wook Lee

Professor, Sejong University
Former Vice-Minister of Environment,
PhD in environmental management

Third-Party Review

I would like to sincerely congratulate the publication of SK Group Environmental Report. Although some Korean companies have published environmental reports, I think this is the first environmental report prepared at the Group-level. In my opinion, SK's unique management philosophy, 'Independent Yet United,' was behind proactively putting the idea of publishing the Group-level environmental report into action.

Group-level environmental management has many advantages, compared to the company- or site-level environmental management; the biggest advantage would be maximizing the synergy effect through adopting a holistic approach of identifying linkages between the businesses that used to be considered independent. Through this, SK can discover new business opportunities, realize cost savings, and optimize resource utilization. In fact, I was able to find practical cases of these while reading the SK Group Environmental Report. Good examples include smart grid, sky home, biodegradable film, and utilization of waste heat steam through MOU between SK energy and Aekyung Petrochemical.

As I work at the United Nations Environment Programme (UNEP), an international organization whose aim is to pursue sustainable development and to realize sustainable society that seeks economic development while minimizing the impact of human economic activities on the environment, ecosystem, and natural resources, I get exposed to trends of global discussions on related issues and various information from around the world. The conclusion I have reached while analyzing such global discussions and information is that the key issues discussed for pursuing sustainable development and realizing sustainable society have not changed over the past several decades. Humanity is still discussing about the same matters such as climate change, depletion of natural resources, destruction of biodiversity, water scarcity, desertification, water pollution, air pollution, and the use of hazardous chemical substances. However, one thing has changed: it is the fact that scientific findings are indicating that these events are a reality, not a concern, and as a result, importance and seriousness of these events are ever increasing.

In recent years almost all countries, regardless of their developmental status, have taken on the low-carbon economic development path, realized the circular flow economy and society, and implemented the 3R (reduce, reuse, and recycle) concept as the basis for national economic policy. In case of China, it is aiming for the realization of eco-civilization along with these policies.

Another change is that many countries have started to recognize environmental issues as the driver for national competitiveness and new growth. Corporations have also started to recognize environmental issues as opportunities to promote corporate competitiveness, to enter new markets, and to expand businesses. Korea is no exception. It is preparing for the 21st century economic leap toward green growth.

SK Group Environmental Report published this year shows what SK, as a global company faced with changes both nationally and internationally, has done to contribute to the sustainable economic and social development and to address global environmental challenges. Regarding environmental issues, SK is not only approaching the issues of climate change, natural resources, water, and hazardous chemicals from the perspectives of regulatory compliance and environmental control, but also from the strategic perspectives of promoting corporate competitiveness and finding new business opportunities.

In case of social contribution activities both at home and abroad, it seems that SK is putting efforts toward continuous environmental improvement and community development, as opposed to carrying out one-off events. In my opinion, this is SK's way of practicing WBCSD's fundamental belief that 'business cannot succeed in



Young-Woo Park
Regional Director and Representative,
UNEP Asia-Pacific Region

Young-Woo Park

a society that fails' and corporate social responsibility.

SK's vision for green management can only be achieved when employees and other participants share the vision, build consensus, and get satisfaction from their work. SK's green management programs are systematically organized to increase understanding of the Group's vision, to build consensus, and to achieve business goals. In addition, many factors of SK's successful achievement of the vision are dependent upon the participation of its business partners. Therefore, business partners' understanding of SK's green management vision and goal is also a very important factor. Considering such reality, that SK has included business partners in its environmental program is an exemplary case that demonstrates sincerity of its environmental management vision and goal.

Through SK Group Environmental Report, I was able to see SK's vision of placing green management as the main corporate strategy and of making various environmental and resource issues including climate change the future driver for growth. Furthermore, I was able to learn about SK's community development activities in Korea and abroad while reading this report. Regarding its social contribution activities, I would like to make several personal statements.

First, all social contribution activities must be focused on the recipients, regardless of whether they take place in Korea or overseas. This is to ensure continuity of the programs. If the program is not recipient-oriented – in other words, if the program does not fulfill the needs of the community – one cannot expect active engagement and a sense of ownership from the local communities. In that case, the communities themselves have no intention of maintaining and further improving the existing programs and once the project period is over, everything discontinues at that point.

Second, I would like to recommend operating capacity building programs in places where SK is carrying out social contribution activities, which is also required to maintain and further improve the programs that SK has initiated. In many cases, places that are in need of such social contribution activities the most can benefit greatly from capacity development programs where knowledge and ownership can be properly transferred locally.

Third, execution of social contribution activities should be done in partnership with the region's local community. This will increase acceptability and continuity of the program.

Again, I would like to congratulate the publication of SK Group Environmental Report. I would also like to extend my congratulations to Chairman of SK Environment and R&D Committee as well as its members of the 11 affiliates, all of who have put much effort toward the publication of this report.

Glossary

Biochemical Oxygen demand (BOD)

Amount of oxygen needed by aerobic biological organisms in a body of water to break down organic material; an indication of the level of water pollution

Carbon Disclosure Project (CDP)

A global project that requests, collects, and analyzes corporate information on greenhouse gas, a major cause of climate change, and mid- to long-term plans regarding the issue from major listed companies in the world, on behalf of financial and investment organizations including institutional investors

Certified Emission Reduction (CER)

Carbon dioxide emission reduction achieved through CDM projects (carbon credits)

Chemical Oxygen Demand (COD)

The amount of oxygen required to oxidize pollutants such as organic material; an indication of the level of water pollution

Clean Development Mechanism (CDM)

A mechanism that enables developed countries to achieve greenhouse gas reduction with CERs (Certified Emission Reductions) from their investment in developing countries

Eco-design

Overarching activities that consider environmental impact, along with cost and quality, across all phases of product development and improvement, raw material selection, design and production, use, and disposal, in order to minimize environmental load

Global Compact

An organization under United Nations and a voluntary initiative that the former UN Secretary-General Kofi Annan encouraged participation of the world's economic leaders; comprises of ten principles in the areas human rights, labor, environment, and anti-corruption that set a framework for organizational responsibility

Global Reporting Initiative (GRI)

An organization founded by CERES, an American environmental NGO, and UN Environment Programme (UNEP); since establishing 'GRI Guideline' which is a global guideline for sustainability reporting, released 'GRI G3 Guideline' in 2006

Green Building Certification Criteria (GBCC)

A scheme that provides certification for green buildings that have contributed to energy savings and environmental pollution reduction across all phases of design, construction, maintenance, and control, under the direction of Ministry of Land, Transport and Maritime Affairs and Ministry of Environment

Greenhouse Gas (GHG)

A type of gas, among various gases in the atmosphere, examples of which include

carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro-fluorocarbons (HFCs), fluorocarbons (PFCs), and sulfur hexafluoride (SF₆)

GHG Inventory

An operations system that systematically manages the list the sources of greenhouse gas by facility, process, and site, in order to statistically manage the amount of corporate greenhouse gas emission

Information & Communication Technology (ICT)

A term that combines information technology and communication technology

ISO14001

International standards granting certification after assessing compliance with environmental management system specification determined by International Organization for Standardization (ISO)

Management Development Program (MDP)

An education program for developing work capabilities of SK executives, focusing on Business Core Knowledge and analysis of Best Practice

Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

A regulation enforced since June 2007 for human health and environmental protection, which combines all chemicals-related regulations within the European Union (EU) and regulates all companies that produce or import over a ton of chemicals per year in the EU to register, evaluate, and get approval by their volume and degree of hazard

Restriction of Hazardous Substances (RoHS)

The directive that controls use of substances that may cause harm on people and environment; use of the six hazardous substances (Pb, Hg, Cd, Cr⁶⁺, PBBs, PBDEs) has been restricted since July 2006

Smart Grid

Next generation electric power network that can optimize energy efficiency by real-time mutual exchange of information between power supplier and consumer using ICT connected to existing electric power network

Tonne of Oil Equivalent (TOE)

A unit that expresses amount of energy equivalent to a ton of oil

Total Suspended Solid (TSS)

Amount of solid particles which remain suspended in water

Volatile Organic Compounds (VOC)

A collective reference to volatile organic compound with a high vapor pressure that causes in the atmosphere photochemical oxidizing substances such as ozone, generating photochemical smog



Happiness+

SK Group Environmental Report 2010

Readers' Opinion

We are waiting to hear your valued opinions on SK Group Environmental Report 2010.
Your opinions will be reflected on SK's green management activities in a meaningful way.

01. Which of the following groups do you belong to?

- ☐ Employee ☐ Investor ☐ Financial institution ☐ Customer ☐ Business Partner
☐ NGO ☐ Academia ☐ Government ☐ Media ☐ Other

02. For what purpose do you use this report? (Multiple answers are allowed)

- ☐ For information ☐ Company evaluation
☐ Competitor analysis ☐ Educational material

03. Which of the following was most interesting about this report? (Multiple answers are allowed)

- ☐ Company Profile ☐ Stakeholder Engagement and Materiality Test ☐ Special Features
☐ Green Management Strategy ☐ Green Culture ☐ Green Process ☐ Green Product

04. Please provide a detailed evaluation of this report.

- ☐ Wording is clear and easy to understand. (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ It provides sufficient and useful information about key issues. (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ The contents are credible. (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ Design is appealing and increases readability. (Strongly disagree) 1 2 3 4 5 (Strongly agree)

05. Please rate each of the following activities.

- ☐ Green Management Strategy (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ Green Culture (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ Green Process (Strongly disagree) 1 2 3 4 5 (Strongly agree)
☐ Green Product (Strongly disagree) 1 2 3 4 5 (Strongly agree)

06. What do you think about SK's green management activities?

- ☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

07. Please feel free to provide your opinion on SK Group Environmental Report.

We would appreciate it if you could mail or fax this form to the address/number below.

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Milestones

- 1953 Founding of Sunkyong Textiles
 - 1962 Korea's first textile export to Hong Kong
 - 1969 Polyester factory production begins
-
- 1973 Acquisition of Walkerhill Hotel
 - 1978 Development of Korea's first polyester film
 - 1979 Institutionalization of SKMS
-
- 1980 Takeover of Yukong (SK energy)
 - 1985 Establishment of Yukong Gas (SK gas)
 - 1988 Korea's first crude oil imported from co-developed overseas oilfield
 - 1989 Conceptualization of SUPEX Philosophy
-
- 1991 Vertical integration from petroleum to textiles
 - 1994 Takeover of Korea Mobile Telecom (SK telecom)
 - 1996 World's first CDMA
 - 1998 Introduction of new corporate identity
 - 1999 Successful development of 3rd generation anti-cancer medicine
-
- 2003 Development of YKP1358, a schizophrenia drug
 - 2004 Successful launch of the world's first DMB satellite
 - 2005 Introduction of "Wings of Happiness" corporate identity
 - 2006 Takeover of Incheon Oil Refinery
 - 2007 Formation of the holding company
Opening of SUPEX Center
 - 2008 SKMS revised for the 12th time/SKMS Research Center opened
Establishment of SK marketing & company
 - 2009 Establishment of SK lubricants
-



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