

Think the Green

KC Green Holdings 2014 Sustainability Report



2014 Sustainability Report

About this Report

This report is the third of its kind published following the 2013 report by KC Green Holdings. KC Green Holdings will publish the sustainability report every year to communicate with various stakeholders and continue to share sustainable management activities and performances.

Period and Scope

The reporting period of this report is for the 2013 fiscal year(January 1, 2013 – December 31, 2013) and in order to enhance the understanding of readers and stakeholders, information for the recent three years(2011-2013) is presented for major performance of the company. The scope of the report includes economic, social and environmental performance focusing on domestic workplaces of all KC Green Holdings affiliates, and includes overseas subsidiaries for some activities and performances. When there is a difference in the scope of reporting, they are explained in each report.

Standard

This report was drafted based on the GRI(Global Reporting Initiative) G3.1 guideline.All of the financial terms, standards and information mentioned in this report are in accordance with the IFRS(International financial reporting standards) and the currency is presented in US Dollars(USD) and Korean Won(KRW).

Assurance

This report was reviewed by a third party expert to improve the reliability of the data and contents reported herein.

Additional Information

This report is published in Korean and English languages and the Korean or English version PDF files can be downloaded at KC Green Holdings homepage. Please contact us with questions or comments.

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CEO Message



“We will strive to become a global environmental company to contribute to social development through the efforts of each and every one of our employees.”

Respected KC Green Holdings Stakeholders,

I am very happy to be able to share the third sustainability management report issued by KC Green Holdings with our client companies, employees, investors, and all stakeholders. When issuing this report for the first time among Korean environmental companies two years ago, KC Green Holdings recognized corporate social responsibilities and the concept of sustainable development from a basic level. However, continuous engagement in sustainable management activities has now become our key strategy for becoming a global environmental company, and all subsidiaries and employees perceive sustainability as an important management index to internalize and unfold concrete management activities.

Global warming, climate change, exhaustion of fossil fuels, and trends to develop new energy resources are the business environment that KC Green Holdings must respond to with continued interest as a company engaged in the environmental business.

Countries around the world are presenting concrete policies to resolve the conflicting and difficult tasks of economic development and environmental protection. The Climate Action Plan presented by the United States in June 2013 displayed their intent to reduce greenhouse gas emissions to the inter-

national community and is expected to induce changes in the environmental policies of other countries in the future. KC Green Holdings will also strive to actively respond to changes in the national environmental policies as well.

Amidst stagnant economic conditions in domestic and international market for the past several years, KC Green Holdings and its subsidiaries posted slightly lower sales and operational profits than the previous year. Major clients invested less in power plants and steel plants due to the slow domestic economy, which resulted in fierce competition to win orders and thus low business performance. In response to such conditions, the newly started energy plant business is expected to begin displaying performance from next year. As the national policy is focusing on 'using wastes as resources' for the continuously growing amounts of waste, the environmental service business is searching for ways to diversify into energy businesses, and through improvements of existing facilities and additional investments, continuous profits are being created. Furthermore, the new and renewable energy business achieved orders for over 20MW solar power plant projects in the past year.

This sustainability report carried out significance evaluations of stakeholders to listen to the opinions of various stakeholders such as employees, partners, and the government as it was being drafted. We went beyond sharing sustainable management strategies and issues to conduct significance evaluations, and the sustainable management goal was set based on these results. Communication with stakeholders is the most important activity of KC Green Holdings' sustainable management, and therefore, we will collect and reflect such opinions using more diverse methods in the future. Also, while preparing for our third report, KC Green Holdings established policies for the internalization of sustainable management and conducted education for employees of subsidiaries. We developed indices in the environmental sector as an environmental company and encouraged subsidiary reports to be drafted focusing on the sustainable management index. For the social sector, in which activities were relatively slacking among the sustainable management sector, social contribution activity strategies were established and detailed plans were devised for the execution.

All of the businesses of KC Green Holdings focused on environmental businesses that could raise the value of Earth and enhance sustainability from the beginning of its establishment. Therefore, the sustainable management of KC Green Holdings supports the ability to carry out businesses and the sustainable management activities of client companies, and through this, we believe that it can ultimately contribute in the sustainability of Earth. For this, KC Green Holdings constructed a tight-knitted network with subsidiaries to maximize synergy effects among affiliates and commercialize opportunities for new changes in the environmental and energy business sector, so that we can display strategic leadership in order to grow into an exemplary business group that contributes to the sustainability of Earth.

All subsidiaries of KC Green Holdings will engage in open communication, voluntary leadership and mutual respect to embrace all cultural differences and effectively share human · material resources among subsidiaries for mutual growth and to grow into an exemplary powerful company in the true global green business. Moreover, KC Green Holdings will organize a well-balanced environmental and energy business portfolio and grow into a holdings company for transparent and sound environmental and energy industries as a company that can contribute to sustainable social development through the efforts of each and every one of our employees. We ask for the unchanging interest and support from client companies and stakeholders in the future. Thank you.

November 2014

KC Green Holdings CEO **Lee, Tae Young**

2013 Highlights

01

Establishment of Nol-Tec Korea, KC Air Filtertech

KC Cottrell established Nol-Tec Korea and KC Air Filtertech to secure technological competitiveness in the ash handling and fabric filter projects and to enhance market responsiveness. Through the two newly joined companies, KC will strive to become global leaders in the ash handling and fabric filter markets.

KC Air Filtertech



02

Project Award for Yeongheung Thermal Power Plant Units 5 and 6 ESP

KC Cottrell won an order for the construction of the ESPs for Yeongheung Thermal Power Plant Units 5 and 6 worth USD 28.5million in February 2013. The project was successfully carried out based on the four principles of 'environment, process, quality and safety management' to provide the highest quality and meet the schedule. KC Cottrell carries out projects with the goal of customer satisfaction and accident-free construction.

03

Project Award for 11MW Yeonggwang Saltern Solar Power Station

KC Solar Energy won an order for the construction of the 11MW Yeonggwang Saltern Solar Power Station project worth 21.2million USD together with D Solar Tech. This was the first attempt to build a power plant on a closed salt pan. KC Solar Energy also secures a 20 years O&M contract, which proved our competitiveness in the plant operation and maintenance sector.

04

Selected as Excellent Company for 'Emissions Trading Pilot Program in Industrial/Power Sector'

KC Glass & Materials was selected as an excellent company for 'Emissions Trading Pilot Program in Industrial/Power Sector' in July 2013 and received the Korea Energy Management Corporation President's Award. This pilot project carried out in preparation to the emissions trading system starting in 2015 was recognized for its efforts and results in reducing greenhouse gases. The considerations and continuous R&D activities of KC Glass & Materials for the environment such as installing waste heat recovery system, introducing highly efficient equipment, and converting to clean fuels are expected to contribute to the

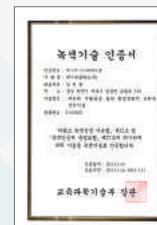
development of green industries in the future.



05

Acquisition of Green Technology Certifications

KC Glass & Materials acquired green technology certifications with 'Environment-friendly Glass Bottle Production Technologies through Waste Glass Recycling'. Through this, KG Glass was able to ensure reliability by receiving certification of its excellent technologies while improving its reputation as an environmental company.



Overview
Create Value

Green Business
Harmonious Relationship

Appendix

06

Construction of the Largest Dry Sorbent Injection(DSI) System-in the US

Nol-Tec Systems won the order and constructed the largest dry sorbent injection(DSI) equipment in the US. State-of-the-art technology was provided so that the client company, EGU(Energy Generating Utility) generator facility can meet the environmental regulations in Sulfur dioxide(SO₂) emissions. We have been recognized for our outstanding project capacities both in domestic and overseas markets.

07

Acquisition of Risk Assessment Outstanding Workplace Recognition

KC Hanmi Environment was recognized as an outstanding workplace in the workplace risk assessment supervised by the Ministry of Labor and carried out by the Korea Occupational Safety Health Agency from October 2013. Self-initiated activities to identify and improve the risk factors of workplaces are stressed by KC Green Holdings on all of its affiliates. KC Green Holdings aims at pursuing safety in all workplaces through endless education and improvement measures based on its safety management philosophy.



08

Achieved Sextuple Period of No-Accident Target(1,980 days)

KC Glass & Materials achieved sextuple period of no-accident target (1,980 days) in July. These are the results of the management policy and efforts of all employees to place utmost priority on safety, environment and health management. Achieving 1,980 days without even one industrial accident was possible thanks to the respect of the human rights of employees, and the perception that safety is the key factor in corporate competitiveness. KC Green Holdings will continue to strive for the health and safety of employees for all of its affiliates. KC Cottrell, KC Glass & Materials, KC Enviro Services, ClestraHauserman and other subsidiaries conduct safety training and regular safety training audits.

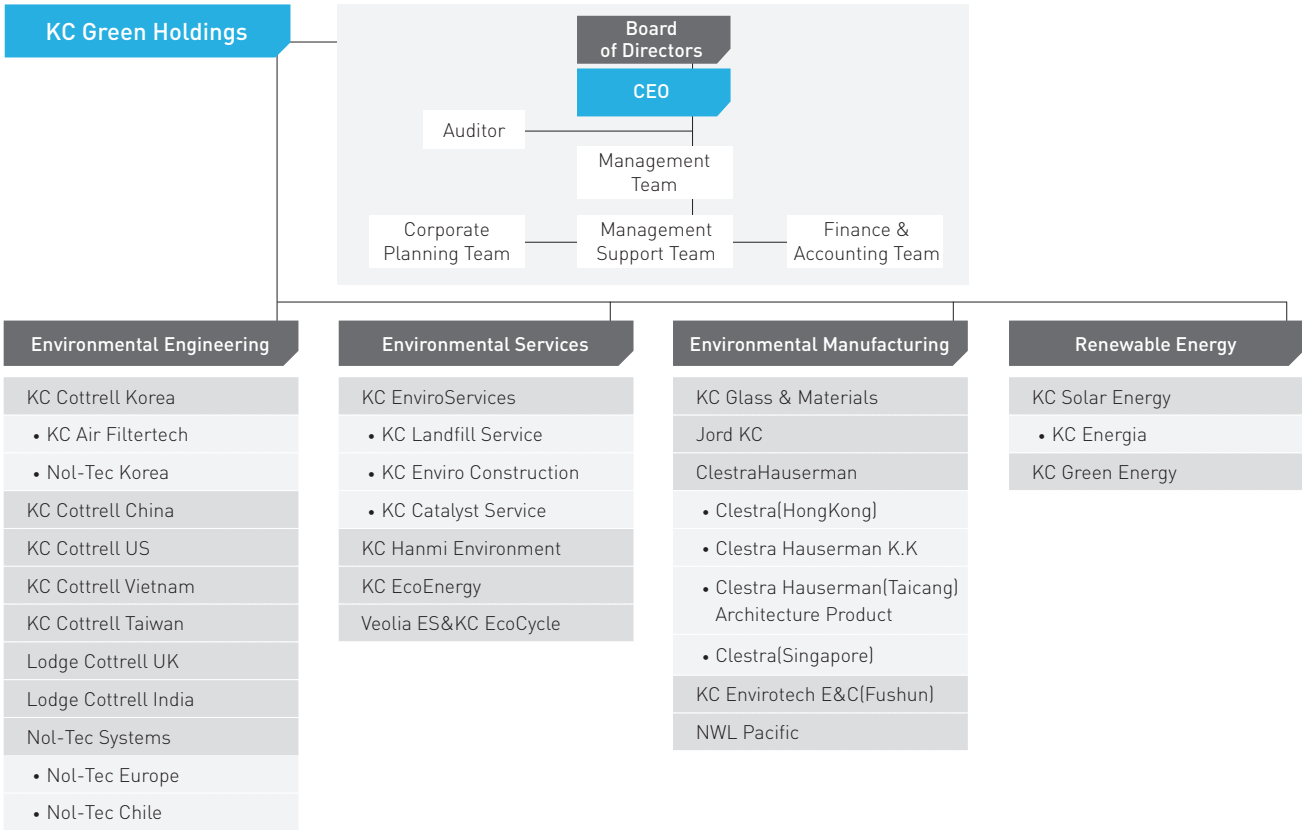


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Company Introduction

Organization

KC Green Holdings, organized with the management team, planning team, support team, and finance team, manages its over 30 subsidiaries in four environmental · green business sectors.



Mission and Vision

Mission	Vision
<p>We are committed to embrace talented people with positive thinking to expand and explore Green · Environmental Business opportunities, to promote the development and growth of our employees and therefore to contribute to the sustainable growth of the global society.</p> <p>Our growth, Green growth, & Sustainable future of global society.</p>	<p>KC Green Holdings, as a holding company in the Green · Environmental business area, is committed to promote synergies among KC Network companies. Based on our solid APC business, we strive to explore synergies with Eco-friendly Green Business and Renewable Energy Business. Our target is to achieve 1 Billion USD revenue from our green business portfolio by 2023, and to build a transparent and solid business group in the Green · Environmental Business Area.</p> <p>We will continue to grow to be a leading company in the Global Green Business with open communication, leadership by everyone, and mutual respect. To achieve our goal, we share effectively technologies and resources among KC Network companies, explore new business opportunities in diverse markets and build close horizontal communication channels among our global entities.</p>

01 Overview

Company Overview

KC Green Holdings started its business as Korea Cottrell in 1973 as an air pollution control specialist and split off on January 1, 2010 to separate its Air Pollution Control(APC) and investment sector to focus on investment and business management as a holdings company. KC Green Holdings operates its subsidiary companies not only in Korea, but around the world such as the UK, the US, China, Vietnam, India and Taiwan. It pursues various environmental businesses including air pollution control businesses, recycling of wastes and waste to energy, and renewable energy.

Company	KC Green Holdings Co., Ltd.
Date of Foundation	November 27, 1973
CEO	Lee, Tae Young
Total Assets	391MM USD
Operating Profits(Revenue)	443MM USD
No. of Personnel	1,182 Persons
Credit Rating	A-[NICE Credit Information Services as of December 2013]

History

1973

- 1973 • Established Korea Cottrell Industrial
- 1979 • Completed construction of Incheon factory
- 1981 • Received Boryeong Fire Plant ESP order

1990

- 1990 • Changed name to Korea-Cottrell
- Established branch in Taiwan
- Received Taiwan Talin/Hsinta ESP order
- 1993 • Awarded at the 1st ChosunIlbo Environment Awards(environmental science technology sector)
- 1994 • Became the first environmental company to be listed on the Korean Stock Exchange
- 1995 • Completed construction of head office building
- Received Dangjin Fire Plant FGD order

2000

- Mr. Lee, Tae-Young appointed as CEO
- Established KC Enviro Services
- Received China Shijiazhuang Fire Plant ESP order

2002

- Established KC Cottrell China

1973

- 1973 • Established Korea Cottrell Industrial
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1990

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2000

- Mr. Lee, Tae-Young appointed as CEO
- Established KC Enviro Services
- Received China Shijiazhuang Fire Plant ESP order

2002

- Established KC Cottrell China

2003

- Established KC Landfill Service
- Established Jord KC

2005

- Acquired Lodge Cottrell UK
- Received a contract for POSCO Gwangyang Steel sinter exhaust gascleaning system
- Established KC Solar Energy
- Established KC Envirotech E&C(Fushun)Co., Ltd.

2006

- Established Veolia ES&KC EcoCycle
- Established KC Cottrell US
- Awarded Minister of Environment Award

2007

- Won a contract for Formosa Texas GSA FGD
- Acquired KC Glass and Materials
- Acquired KC Enviro Construction
- Acquired ISO 14001 certification
- Selected as company that contributed in the development of outstanding capital goods

2008

- Acquired KC Hanmi Environment
- Changed name to KC Cottrell
- Acquired KC Energia

2009

- Established KC Cottrell Vietnam
- Established Lodge Cottrell India
- Established KC Green Energy
- Acquired shares of NWL Pacific

2010

- Split into a holding company of KC Green Holdings and the environmental company of KC Cottrell
- Entered wind power business as JV with Invall(KC Green Energy)
- Acquired Nol-Tec Systems
- Selected as Korean Hidden Champion fostering industry company(Export-Import Bank of Korea)
- POSCO World Best World First product development agreement

2011

- Acquired KC EcoEnergy
- KC Cottrell acquired Korea Solar Holding Company
- Established Pusan-Shinho Solar Power Generation Plant

2012

- Established KC Cottrell Taiwan
- Opened KC Cottrell Indonesia Branch Office
- KC Cottrell selected as leading environmental company by Korea Environmental Industry & Technology Institute
- KC Solar Energy and KC Cottrell constructed 20MW Pusan-Shinho Solar Power Generation Plant
- KC EcoEnergy certified ISO 14001 certification (Environmental management system)
- KC Glass and Materials completed production line for Glass Bubble Frit
- Introduced the knowledge management system, K-ONE
- Published sustainable management report(For the first time among Korean environmental companies)

2013

- Ansung Glass changed company name (KC Glass & Materials)
- KC Invall Green Energy changed company name (KC Green Energy)
- KC Honam Environment changed company name (KC EcoEnergy)
- Established KC Air Filtertech and Nol-Tec Korea(KC Cottrell)

2013

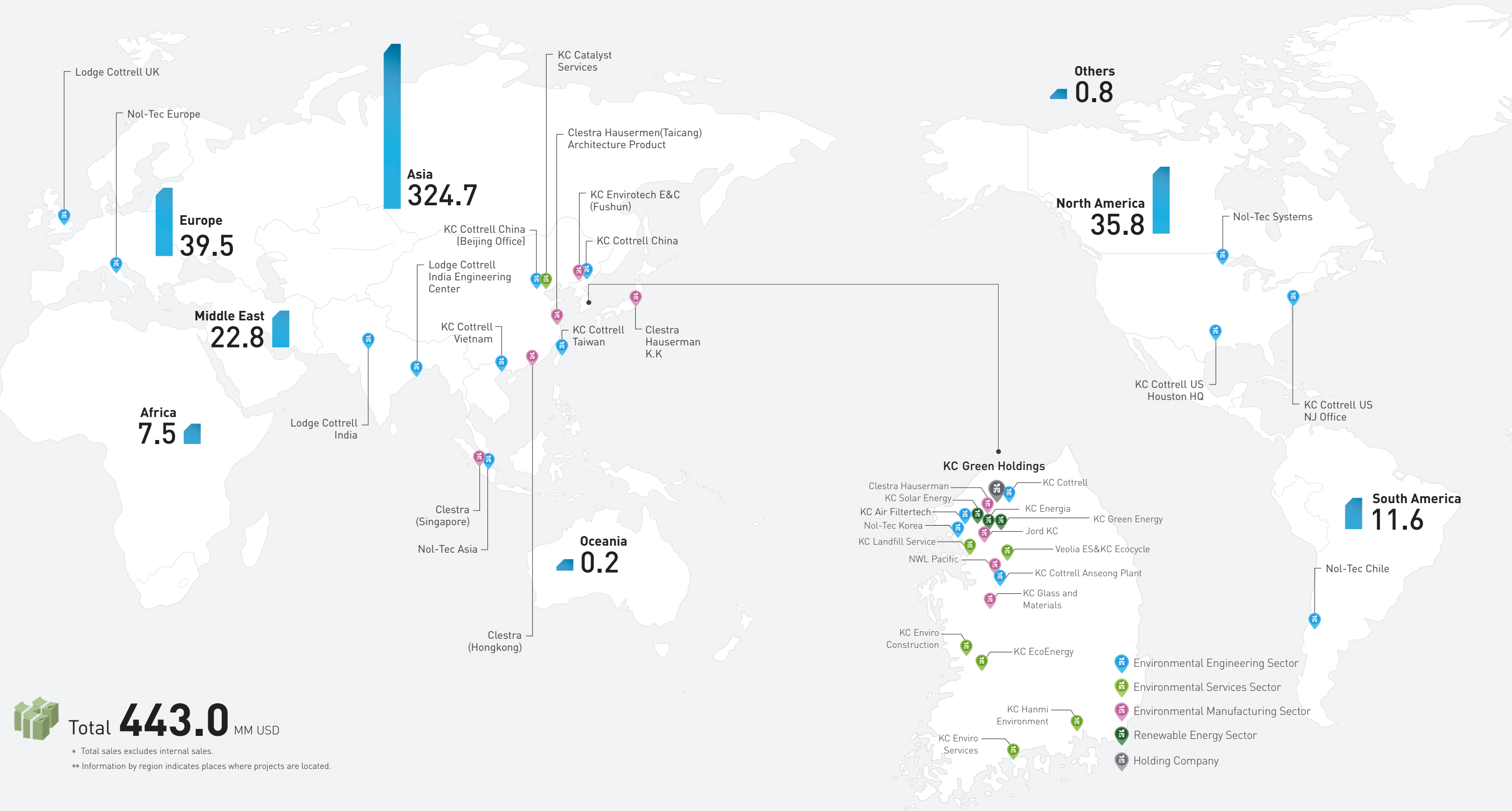
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- KC Invall Green Energy changed company name (KC Green Energy)
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2014

- Established KC Air Filtertech Korea

Global KC Green Holdings

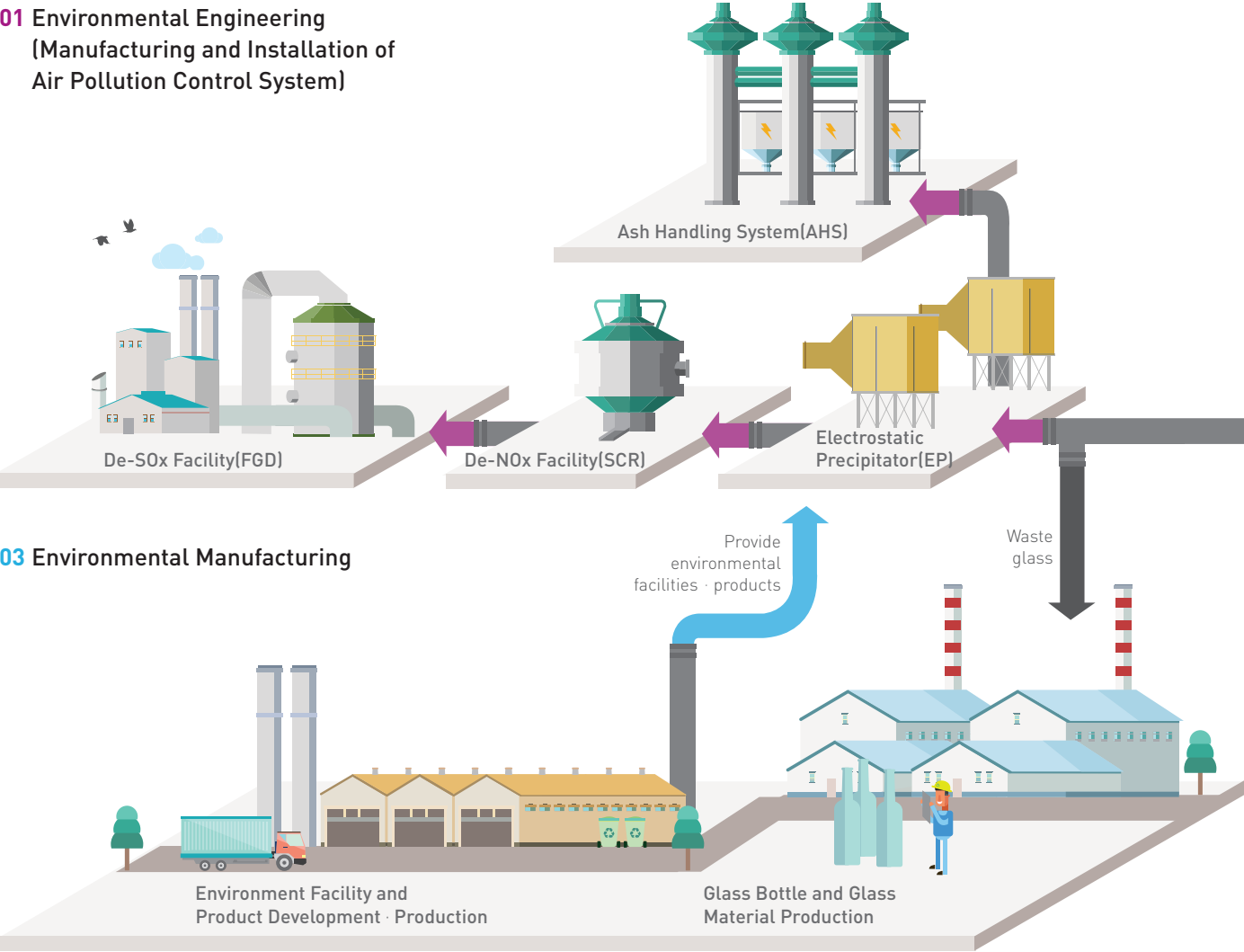
Unit_MM USD



Major Businesses

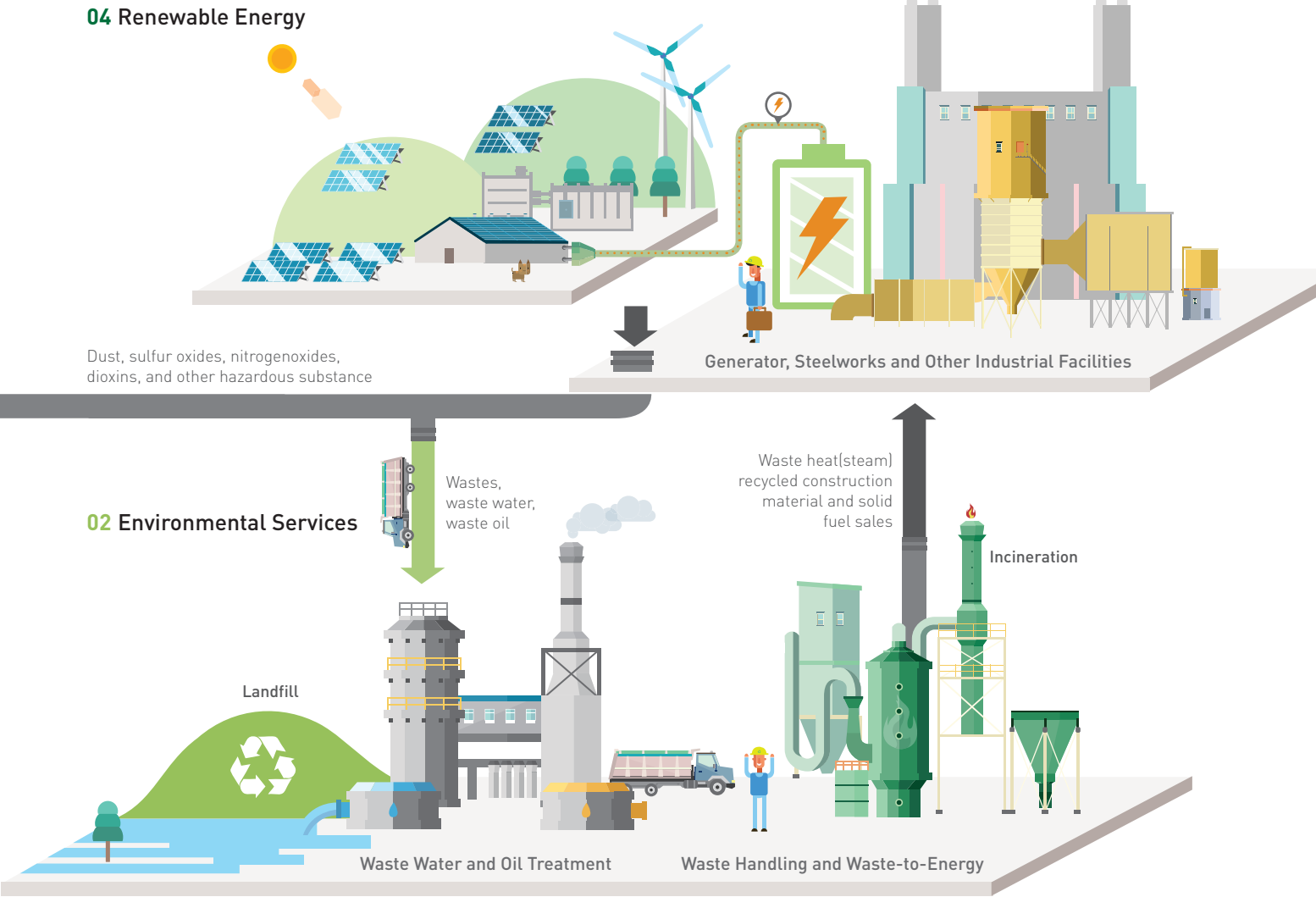
KC Green Holdings manages about 30 subsidiaries in the environmental engineering, environmental services, environmental manufacturing, and renewable energy sectors.

01 Environmental Engineering (Manufacturing and Installation of Air Pollution Control System)



03 Environmental Manufacturing

04 Renewable Energy



02 Environmental Services

01 Environmental Engineering

The environmental plant business sector provides high quality environmental facilities based on accumulated technological expertise and experience to protect the health of humanity and to manage and preserve pleasant environments sustainably. Especially with the global interest and demands on more stringent control over air and water pollution, we are designing a future to contribute in the development of the environmental industry through close cooperation with KC subsidiaries around the world. The environmental plant sector is continuously striving to make a clean environment for the world we live in.

Companies KC Cottrell, KC Air Filtertech, Nol-Tec Korea, KC Cottrell China, KC Cottrell US, KC Cottrell Vietnam, KC Cottrell Taiwan, Lodge Cottrell UK, Lodge Cottrell India, Nol-Tec Systems

02 Environmental Services

Wastes are mainly treated by incineration or landfill and some of them are recycled. Not only does it cost a lot, but it can also cause secondary environmental pollution by contaminating the soil, water or air. Thus, environmental services sector is focusing on safe and lawful treatment of wastes, as well as turning wastes into valuable resources through recovering heat to steam energy, using waste discharges as fuel, and recycling waste catalysts. We are exercising environmental management through continuous comprehensive environmental management systems in order to inherit clean environment to our future generations.

Companies KC Enviro Services, KC Landfill Service, KC Enviro Construction, KC Catalyst Services, KC Hanmi Environment, KC EcoEnergy, Veolia ES&KC Ecocycle

03 Environmental Manufacturing

KC Green Holdings is working on developing technologies and manufacturing products for environmental protection together with excellent overseas partners through its environmental manufacturing sector. In addition, we encourage cooperation among KC Network companies to become a leading company in the environmental manufacturing sector that realizes high level of satisfaction by paying attention to needs of the market and customers. The environmental manufacturing sector does not simply make and sell products, but continuously strives to contribute to improving the health of society and people, as well as in constructing a pollution-free society.

Companies KC Glass & Materials, Jord KC, ClestraHauserman, KC Envirotech E&C(Fushun), NWL Pacific

04 Renewable Energy

With the Kyoto Protocol in place, countries around the world are focusing on securing stable energy supplies under growing burden to reduce greenhouse gas emissions and the continuing high oil prices. Renewable energy is the focal point of attention as a solution of environmental issues and as a new source of energy.

Companies KC Solar Energy, KC Green Energy, KC Energia

Sustainable Management of KC Green Holdings

Core Values, Vision and Mission

Vision

Global GREEN Business Company

Global Leader of environmental industry with the recognition for its transparent and sound management

Mission

Fostering creative human resources and spirit of challenge to the best technologies and services will create sustainable corporate value and contribute to the development of humanity.

- Create synergy through sharing and spreading
- Expand to new markets and new industries
- Win-win management through bi-directional networks
- Build corporate culture of self-motivated participation and mutual-respect

Core Values



7 Main Issues of Sustainable Management	Economic		Environmental		Social		
	Value Creation	Innovative Management	Environmental -Friendly Businesses	Environmental Pollution Management	Mutual Growth	Human Resource Development	Social Contribution
	<ul style="list-style-type: none">• Management performance• Quality-product guarantee• New business• Governance	<ul style="list-style-type: none">• R&D• Innovation activities• Risk management• Knowledge management	<ul style="list-style-type: none">• Environmental management system• Environmental technologies• Use of sustainable resources• Renewable energy	<ul style="list-style-type: none">• Pollution Prevention	<ul style="list-style-type: none">• Win-win cooperation• Fair competition• Ethical management• Product responsibility• Customer happiness• Stakeholder engagement	<ul style="list-style-type: none">• Family-friendly management• Employee health and safety• Training / Education	<ul style="list-style-type: none">• CSR• Social contribution activities

2014 Sustainable Management Goals

Business Group Goals

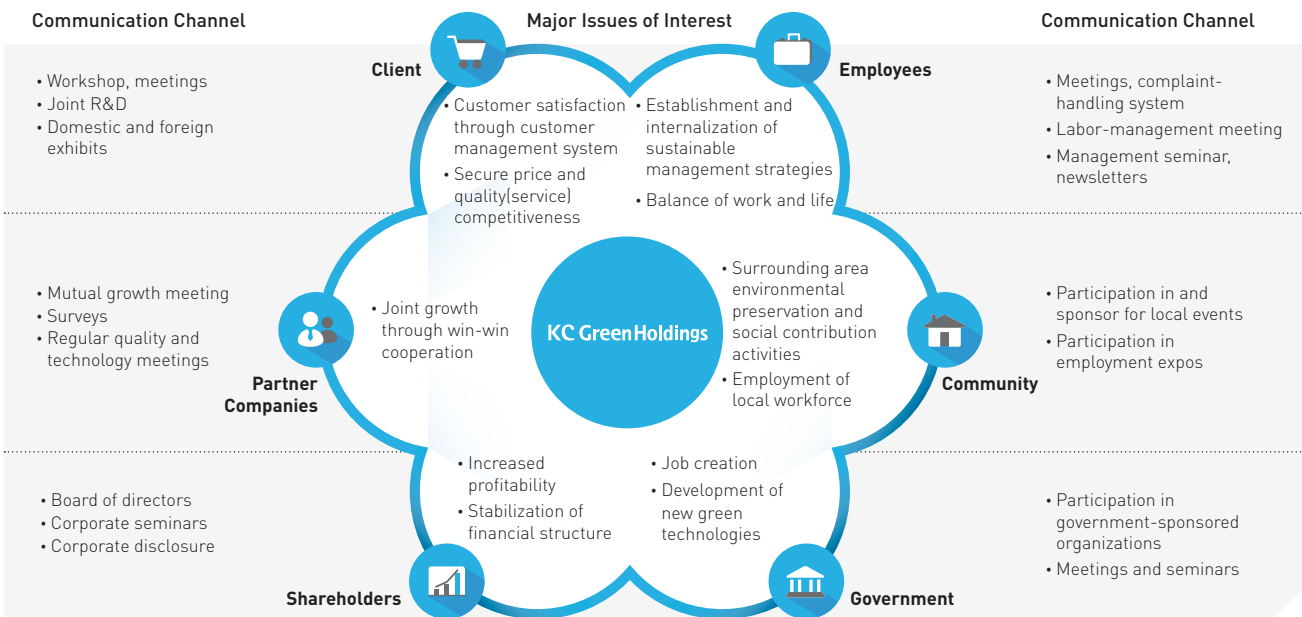


Internalize Sustainable Management in Enterprise-wide Management Index		Strengthen Communication with Stakeholders		Establish Strategic CSR Strategies	
Environmental Engineering	Environmental Services	Environment-friendly Equipment Manufacturing	Renewable Energy		
<ul style="list-style-type: none">• Develop and manufacture environment-friendly air pollution control facilities for sustainable global environment• Expand Waste-to-Energy Business	<ul style="list-style-type: none">• Waste and sewage treatment system which restores nature in safe and clean manner	<ul style="list-style-type: none">• Develop and manufacture high efficiency and high performance environmental equipment	<ul style="list-style-type: none">• Develop environment-friendly renewable energy for the future environment		

Stakeholder Communication

KC Green Holdings communicates with various stakeholders in Korea and in overseas. Major stakeholders are defined as clients, employees, partner companies, community, shareholders and the government. we identify their anticipations and issues through various channels, and strive to reflect these in the sustainable management.

Major Issues of Interest for Stakeholders and Communication Channels + Major Activities



Major Activities

<p>Client</p> <ul style="list-style-type: none">• Customer satisfaction survey(KC Cottrell, Lodge Cottrell UK, KC EnviroServices, Nol-Tec systems)• Joint R&D with clients(CO₂ collection technology development and utilization plans(POS Himetal), city railway tunnel and vehicle air quality improvement technology development (Korea Railroad Research Institute))• Meeting(New Year invitational meeting of excellent domestic and foreign suppliers to POSCO(KC Cottrell))• Seminar(Client company invitational technological seminar(KC Cottrell, KOSPO)), Power-Gen Europe 2013(Lodge Cottrell UK, Nol-Tec Europe)• SNS(Facebook) (ClestraHauserman)• Environment exhibition and expo (2013 International Environmental Energy Industry Exhibit, 2013 Korean R&D Exhibit, etc)	<p>Employees</p> <ul style="list-style-type: none">• Knowledge management system-Suggestion management, Forum discussion (KC Cottrell, all year round)• Suggestion program operation and awards• Sports day and Outings per business division or subsidiary(Environmental service business sector[annual])	<p>Community</p> <ul style="list-style-type: none">• Sponsor for community event (Various local sports events and festivals)• Scholarship for children in need(KC Hanmi Environment)• Cooperation with public benefit organizations (Korea Dokdo, Daemado Academy (Member of Loving Green Movement) (KC Cottrell))• Fire safety training with private sector (KC Glass & Materials)• Volunteer activities for social companies (St. Mary's Protection Work Center, KC Cottrell)• Solar power facility donation to Busan School for the Talented in Science(KC Solar Energy)• Participation in local business association (KC Cottrell Anseong Plant)
<p>Partner Companies</p> <ul style="list-style-type: none">• Construction quality quarterly meetings (ClestraHauserman)• Mutual growth workshop (KC Glass & Materials, more than once a year)• Technical session (Environmental engineering sector, annual)• Sports event with partner companies and sponsor partner companies' events (Environmental services sector)• Physical examinations for personnel of partner companies(KC Cottrell Anseong Plant, NWL)	<p>Shareholders</p> <ul style="list-style-type: none">• KC Green Holdings corporate board meeting• Management announcement (year-round) - homepage• Corporate disclosure(when necessary) (KC Green Holdings, KC Cottrell)• Business report(Quarterly, half-year)• Performance announcement (year-round)	<p>Government</p> <ul style="list-style-type: none">• Participate in technological forum for improving Ministry of Environment's waste management program (KC EnviroServices, KC Hanmi Environment, monthly)• Designation as green industry expert member in wastes for Changwon(KC Hanmi Environment)• Waste resource mutual aid association board of directors and southern association supervision (KC Hanmi Environment)• Participated in energy performance analysis pilot project, parts and materials technology development project, safety&health management, employment internship program, and other government policies and programs (KC Glass & Materials)• Activities in regional police development committee and school violence prevention sub-committee under Jeonju Provincial Police Agency(KC EcoEnergy)

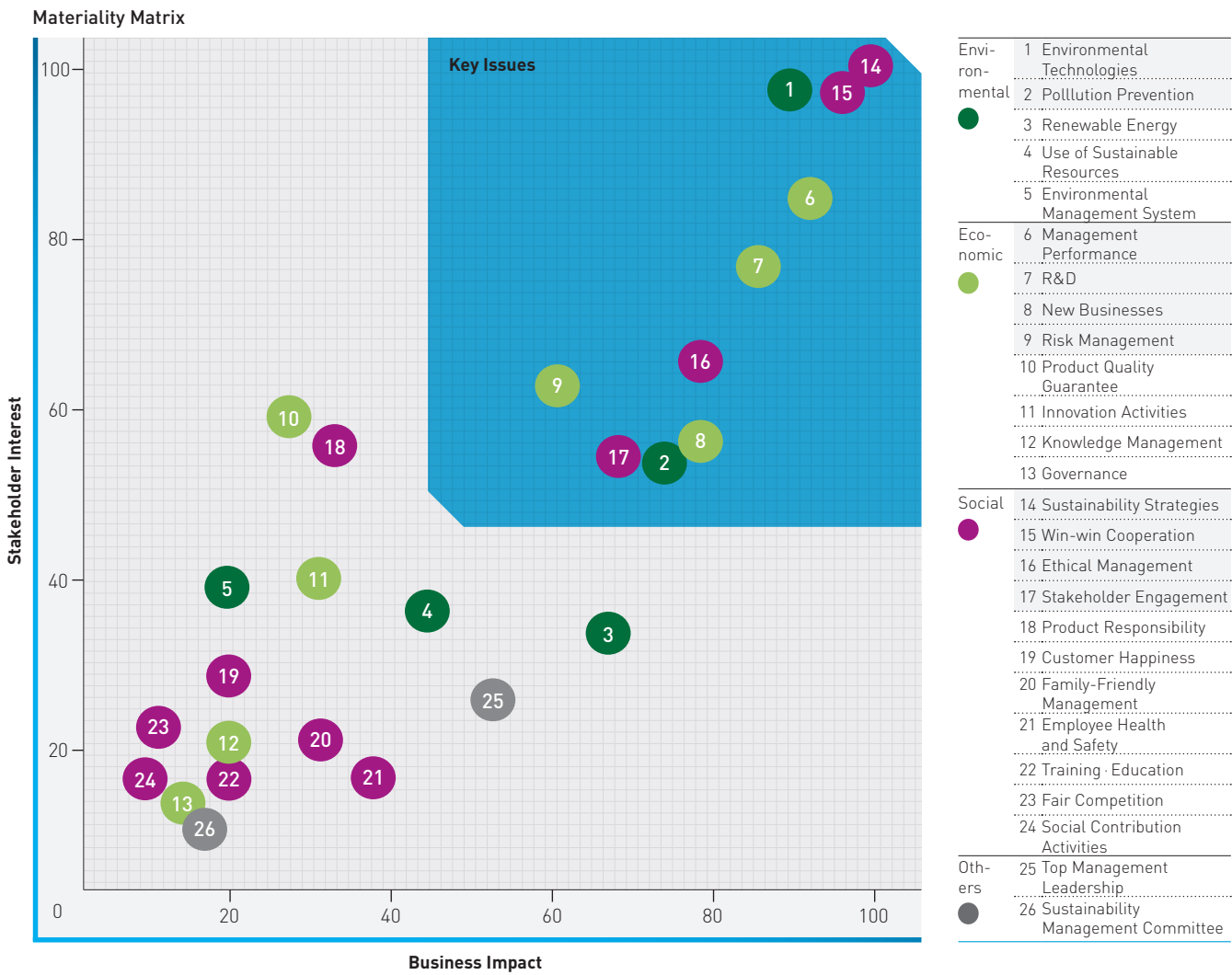
* Regular meeting for discussing technologies and products with overseas subsidiaries or partner companies

Materiality Analysis

STAGE 1 Deciding Sustainable Management Issue KC Green Holdings selected 25 sub-issues through analyses such as domestic and foreign standards of sustainable management and expert proposals together with the 2013 sustainable management mission and vision. Based on this, materiality analysis was conducted to discover the opinions of various stakeholders.

STAGE 2 Stakeholder Materiality Analysis KC Green Holdings pursues communication with stakeholders, and develops sustainability initiatives based on their opinions. For the sake of efforts, we delivered our commitment to sustainability to stakeholders, and conducted the first survey with a message that encourages their participation. The opinions of stakeholders were collected for 25 items through the survey, and the major tasks for sustainable management were deduced and executed based on this report to determine the focal points to report.

STAGE 3 Deducing Key Issues The key issues were selected considering the opinions of stakeholders as well as internal strategies, regulations and market trends. Also, the direction of sustainable management desired by stakeholders was confirmed and the achievements for these were entered in the report. We are planning to continuously show interest and manage issues outside of the key issues as well.



Ethical Management

KC Green Holdings is striving to create transparent corporate culture. The code of conduct is distributed to all KC Network companies, and enterprise-wide ethics training is scheduled so that all members can be fully aware and exercise the contents of ethical management. Ethical management is being exercised by each subsidiary in day to day operations.

Fair Trade All affiliates of KC Green Holdings promise customers and partners clean and transparent transactions, and we will exercise these. KC Cottrell US is participating in a fair trade agreement program with the United States government. Through this, investors are shown that there are no unfair trades as it continues its activities that emphasize fair trade.

Ethical Management Activities Each affiliate is striving to spread the practice of ethical management. In particular, KC Glass & Materials has announced its ethical management policies through partner company workshops. The company also carries out activities to identify the difficulties of partner companies. In addition, complaint handling process is being operated for employees to take actions against violations of code of conduct and as preventive actions. Lodge Cottrell India encourages partner companies to draft consent forms and confidentiality agreements related to ethical management in its efforts to exercise ethical management from the early stage of projects.

Ethical Management Implementation Status

Business Sector	Subsidiary	Training Name	Hours / Sessions	No. of Participants
Environmental engineering division	KC Cottrell US	Employee Handbook, Sections 4.01 and 4.02 Behavior Guidelines	4/2	19
	KC Cottrell	Sexual harassment prevention training	1/1	120
	KC Cottrell Anseong Plant	Sexual harassment prevention training	1/1	65
	NoL-Tec Korea	Sexual harassment prevention training	1/1	13
	NoL-Tec Systems	Corporate ethics	20/1	1
Environmental services sector	KC Hanmi Environment	Business transparency with stakeholders Respect company's property rights	2/2	44
	KC EcoEnergy	Sexual harassment prevention training in company	1/1	40
Environmental manufacturing sector	KC Glass & Materials	Sexual harassment prevention training and training on prohibiting discrimination against the disabled	1/3	129

| Code of Conduct |

- 1. Observance of laws, ethics and company policies**

 - KC Green Holdings shall respect fundamental values of principles and observe international standards and laws in order to be a reliable and respectable company.
 - Respect human dignity.
 - Ensure fair competition within the boundary of law.
 - Maintain and manage accurate accounting and records.
 - Do not be politically involved and during political activities, abide by the law.
- 2. Maintain clean and fair corporate culture**

 - Bribes and inappropriate contributions among stakeholders are forbidden.
 - Company funds shall be executed in a transparent manner according to principles.
 - Respect and protect the property rights of the company and others.
- 3. Respect customers, stockholders and employees**

 - Place utmost priority on management activities that give true value to customers.
 - Pursue management to bring profits to shareholders.
 - Strive to give opportunities of self-development for all the employees of the organization
- 4. Environment and people centered management**

 - Value sustainable and environment-friendly management.
 - Put first priority on the Health and Safety of humanity based on the management philosophy of Respect for Human.
- Maintain cooperative business relationships focusing on mutual growth**

 - Establish a healthy and sound organizational atmosphere.

Governance

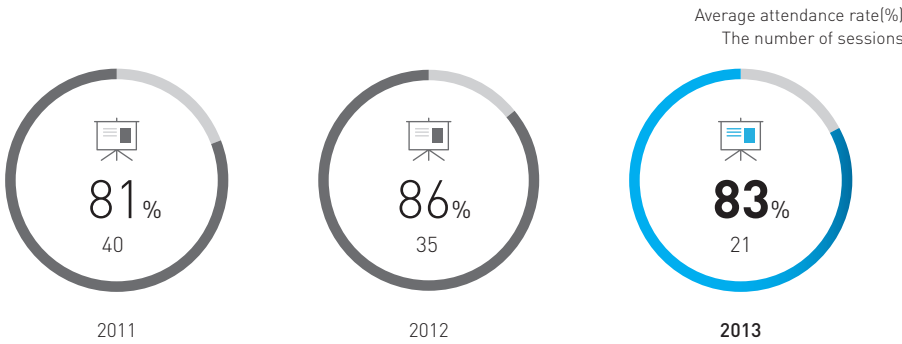
Board of Directors The board of directors of KC Green Holdings is made up of five members - three internal directors, one external director, and one auditor. The board of directors has the authority as the top decision-making organization, and the directors execute their duties based on the company by laws according to commercial laws. The directors are appointed at the general shareholders meeting, and the salary ceiling of the board of directors is determined at the general shareholders meeting as well. The auditor is in charge of auditing the accounting and operations of the company in order to ensure transparency and lawfulness in management. Appropriate auditing procedures are being applied, such as perusing records and documents for major duties to fulfill auditing operations, thus allowing the auditor to access management information.

A total of 21 board of directors meetings were held in 2013, and the main contents of discussions were on acquiring treasury stocks and other corporation investments.

Organization of Board of Directors

Section			
Internal Directors	Lee, Tae Young	<ul style="list-style-type: none">• CEO of KC Green Holdings• CEO of KC Cottrell• Simon Fraser University MBA• Seoul National University Department of Business Administration	Chair-person
	Seo, Dong Young	<ul style="list-style-type: none">• Samsung Electronics('87~'92)• Seoul National University Department of International Economics(Masters)• Seoul National University Department of International Economics	Full-time
	Kim, Jeong Wan	<ul style="list-style-type: none">• Current CEO of KC Glass & Materials• Former executive at KPMG• Former director at Korean Air• CPA• Seoul National University Department of Business Administration(Masters)	Full-time
	External Director Lee, Jae Gyeong	<ul style="list-style-type: none">• Current Professor of Business Administration at Kookmin University• Former outside director for Korea Investment & Securities• Former outside director at Golden Bridge Mutual Savings Bank	Part-time
Auditor	Kim, Jong Ryeol	<ul style="list-style-type: none">• Current business of energy industries feasibility assessment committee member for the Ministry of Knowledge Economy• Current professor at the Hanyang University Graduate School of Engineering• Former director of the Hanjin Telecommunications Business Administration Office• Formerly worked at Korean Air in Japan• Former team leader for financial risk at the Hanjin Group Management Mediation Office• Hoseo University of Information management(PhD in business administration)• Inha University Business School MBA• Chungang University Business Administration Department	Full-time

Board of Directors Meetings



Risk Management

KC Green Holdings categorizes risk types per subsidiary and carries out various risk management activities. Risks can be in different ranges depending on the nature of each business group. Some subsidiaries respond to risks from an enterprise-wide perspective such as technology · information, finance, personnel, customers · investors, etc. In addition, some companies have risk management processes and exercise the processes day-to-day operation while others focus more on a proactive prevention processes.

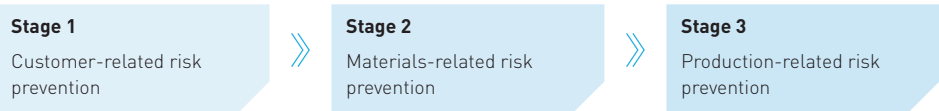
Safety Management

KC Green Holdings places utmost priority on workplace safety. KC Green Holdings developed its Crisis Response Manuals and prepared for potential threats such as natural disasters(earthquakes, typhoons, etc), industrial disasters, fires, blackouts, and etc. Safety management training is held annually / quarterly / monthly to all employees of subsidiaries, and safety inspections are carried out regularly for subsidiaries with potential risk factors. Also, safety managers are designated to carry out internal and external trainings. The safety managers examine checklists (firefighting facility inspection checklist, etc) quarterly. If required, Risk Management Processes are operated ongoing basis. on the capacity building of employees as potential leaders.

- KC Green Holdings, KC Cottrell and KC Glass & Materials have volunteer firefighters in their workplaces and shares emergency contact networks to respond to crises.
- KC Air Filtertech is carrying out safety management, risk assessment, accident-free campaigns, and safety health material data(MSDS) management.
- KC Enviro Construction established the safety management process of 'identification-assessment-monitoring, report-response' and manualized them for safe management in the workplace.
- KC EnviroServices defined the risks types and entered them in the manual. Based on this, regular simulation training is carried out as part of the system for risk prevention and prompt response.

Project Management

KC Cottrell Anseong Plant is working on quality management and cost reduction through a three-stage project risk management. Furthermore, project checklists and risk assessments are carried out to identify risks in advance to minimize troubles from occurring.



Risk Management Committee

Chair-person	CFO
Member	Finance Team Leader
Member	External expert recommended by CEO
Member	Person recommended by the chairperson of risk management committee for case by case

* KC Green Holdings

Information System Security Management

In order to protect the information system from risk factors such as DDoS attacks, malicious codes and viruses, KC Green Holdings responds and manages by each affiliate. KC Green Holdings constructed the DRM(Digital Right Management) solution, a technology to prevent illegal leaks of various digital contents to protect the company's unique technologies. KC Glass & Materials has subcontract a security service from an outside company to inspect the information system once a week, and uses remote controls in the case of emergencies. Also, internal materials are worked on using the E-Count ERP and a staff in charge is designated to conduct outside training as well as 1:1 working staff training.

23 Economic Performance
25 Innovative Management

02 Create Value

Shared economic value, 461.7 Million USD
Completed a green technology development project on manufacturing site
(green technology certification, GR(good recycled product) certification)



Credit
Rating
A-



Operating
Revenue
443
MM USD



Joint R&D with
Client Companies

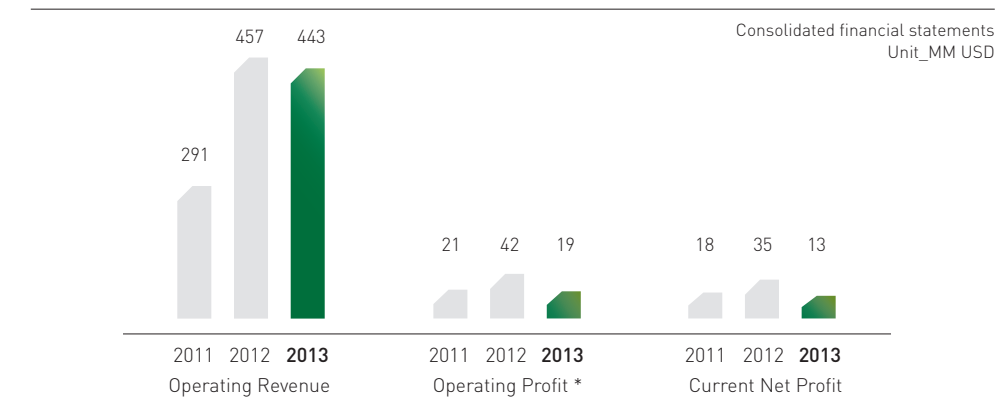
Economic Performance

KC Green Holdings does its best for safe business operation based on a future-oriented and balanced business portfolio. The produced economic values are transparently revealed to interested parties, and the value are shared fairly.

Creation of Economic Value

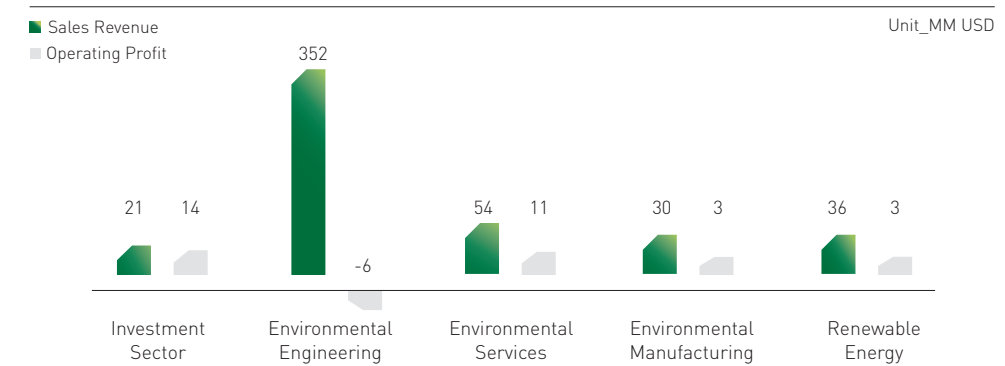
Despite the global recession that has negative effects on the export and domestic consumption across all industries in Korea, KC Green Holdings posted performance of 443 Million USD. KC Green Holdings will continue to raise corporate value through various management strategies from finding new clients and markets to technological innovation in order to successfully win record-setting project orders as a leader in the environmental industry.

Consolidated Financial Statements



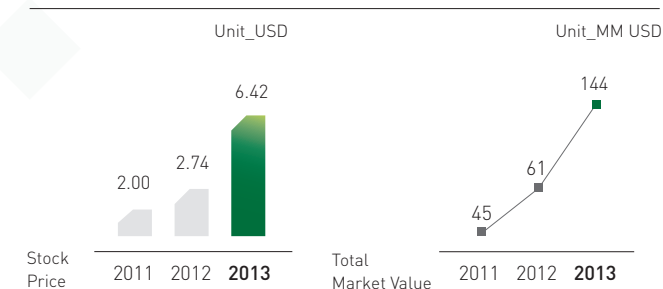
* There is difference between the operating profits of 2011 in 2012 Sustainability Report and those numbers in this report due to early adoption of Corporate Accounting Standard 1001(revised in September 2012) was applied in advance in 2012.

2013 Economic Performance per Business Sector*

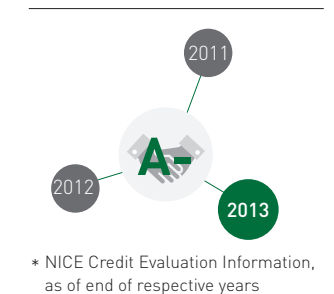


* The revenue and operating profits are simple summation including internal transactions between subsidiaries.

Stock Prices



Credit Rating



Creation of Indirect Economic Value

Client KC Green Holdings is striving to improve quality through the development of competitive technologies in all business sectors and the improvement of management systems in order to reduce the costs of client. (Page 38)

Partner Companies KC Green Holdings implements mutual growth programs such as technical supports, quality control, and admin supports to partner companies including sub-contractors and sub-suppliers, as well as fair trade program such as better payment terms and conditions to small businesses. (Page 36, society-partner companies part)

Employees KC Green Holdings operates employee career development programs and benefit programs under the philosophy of human-centered management. In addition, with continuous growth of company, we are striving to share the growth with employees through salary raises and bonuses to recruit and maintain talented human resources. (Page 40, society-employees part)

Community / Environment KC Network companies are striving to practice various social contribution activities and to create jobs for the local communities in order to boost the communities to which the companies belong. We are also engaging in activities to improve the environment of the community. (Page 28, environment)

Shareholders and Investors KC Green Holdings is striving to improve shareholder / investor values by identifying needs through communication with shareholders and by maximizing corporate values through continuous sales growths and achieving profit targets.

Government KC Green Holdings believes active participation in various policies, including the government’s environment-related policies plays important role to uplift national competitiveness. KC Green Holdings also fulfills tax responsibilities.

Distribution of Economic Values			Unit_MM USD
Section	2011	2012	2013
Operating expenses	253.53	414.67	423.21
Wages and benefits	14.37	17.51	19.65
Capital expenses	4.54	5.43	11.01
Taxes and dues	5.73	11.86	7.49
Donations	0.38	0.26	0.42
Distributed economic values	278.56	449.73	461.79

- Operating expenses_Sales costs and sales management expenses
- Capital expenses_Interest fees and dividends
- Taxes and dues_Corporate taxes, taxes and dues

Innovative Management

KC Green Holdings is working on research to develop new technologies and products, as well as for management methods and corporate culture reforms. With innovation in all sectors as the basic management philosophy, all subsidiaries are continuously conducting research to create new value.

R&D

KC Network companies pursue technology development from a company-wide aspect. Diverse R&D activities are being carried out to differentiate technologies from other competitors. Furthermore, KC Network companies are developing joint R&D projects with clients to identify customer needs proactively and to keep up our technologies to the ever-changing market demands. R&D center of KC Cottrell is currently running many R&D projects with two major goals : One is to create more value by expanding its own technologies in existing fields; the other is to pioneer new technologies in the newmarket for environmental industries. The ‘SCR catalyst re-manufacturing technology development’ being pursued together with KC EnviroServices is recognized as a good opportunity for both companies to procure technological capacities.

R&D Direction for KC Cottrell

Development of new technologies to enter resource recycling market

New product&technology development : New SCR catalyst, ship exhaust gas treatment technology

Performance improvement of existing facility (electric dust collector, desulfurization facility, etc) and fine dust treatment technology development

R&D Process

Market survey » Demand survey » Collection of opinions » Selection of necessary technologies » Technology screening[commercialization plans] » Selection of new technologies to develop » Development of technologies » Completion of technology development » Evaluation » Commercialization



Post combustion dry CO2 collection 10MW facility



Test tower for desulfurization facility R&D

Research Projects in Progress and Performance

- FG Design factor deduction test(KC Cottrell)
- SCR catalyst development using metal foam(KC Cottrell)
- Electrochemical Process for Producing Formic Acid from CO2 (KC Cottrell)
- Pursuing used gasoline automobile catalyst re-manufacturing commercialization(KC Cottrell)
- Development of KC desulfurization facility to improve sales competitiveness(MK-99, efficiency 99%) (KC Cottrell)
- Development and substantiation of module-type compound variance power system(KC Cottrell)
- 10MW CO2 collection facility process development(KC Cottrell)*
- SCR catalyst re-manufacturing technology development (KC Cottrell)*
- Development of exhaust gas treatment system in preparation for stronger ship exhaust gas regulations(KC Cottrell)

- Condenser design, algorithm construction and application program development with the Shinsung University Department of Steel Industry(Jord KC)
- SCR catalyst re-manufacturing technology development with KC Cottrell(KC Enviro Service Services)
- Development Glass-Ceramic Board(KC Glass & Materials)
- Advanced materials sector[insulating material, ceramic, glass bubble frits], white glass container manufacturing (KC Glass & Materials)
- Hammering device of rapping system ESP(Nol-Tec Korea)
- PAC Conveyance using Continuous Transport system Technology Project “Components” testing and evaluation(Nol-Tec Systems)

* Marked projects were conducted by the government support fund, 4.8 MM USD.

Future R&D Projects

Development of ship exhaust gas treatment facility(KC Cottrell) Standards for sizing gas-management on systems without air assist, USDA dust collection, splitter design, modify air pad distributor, dehumidifier guidelines, hose switch design(Nol-Tec Systems)

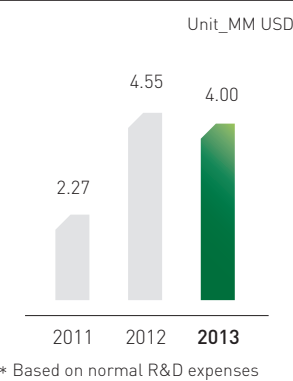
| 2013 R&D Performance |

- Completion of manufacturing site green technology development project(green technology certification, GR(good recycled product) certification) (KC Glass & Materials)
- Air Rapper(pneumatic cylinder type) (patent pending) (Nol-Tec Korea) Improvement of air quality by removing fine dusts in city railway tunnels(reduce by 50% or higher) (KC Cottrell)
- Development of petroleum refinery medium oil desulfurization catalyst re-manufacturing process technology(preparing to install demo plant after technological development) (KC Cottrell)
- Completion of manufacturing desulfurization, denitrification, de-dusting and catalyst re-manufacturing test facility (procured technological basis) (KC Cottrell)
- Coating method of molds for glass container molding and molds with coated surface according to this method(KC Glass & Materials)



Coating method and coating treatment technique for glass container molds(KC Glass & Materials)

R&D Investment



Patents

	Name of Patent	Patent No.	Reg. Date	Section
1	Deodorizing method and deodorizing device according to saw-tooth wave corona discharge	0191681	01-26-1999	Patent
2	Electrostatic pesticide distribution device and methods	164678	09-14-1998	Patent
3	Electrostatic filter cloth dust-collection method due to corona discharge and its device	0227127	07-30-1999	Patent
4	Plasma ionization gas generating device using streamer corona discharge	0227128	07-30-1999	Patent
5	Air pollutant treatment method and its device using streamer corona discharge	0228835	08-12-1999	Patent
6	Gas discharge forming device using high voltage impulse	0344988	07-04-2002	Patent
7	Hazardous gas purification device of streamer corona discharge inside the reactor using high voltage impulse power	0381499	04-10-2003	Patent
8	High voltage impulse discharger with three pole electrode characteristics with adjustable electrode	0367785	12-27-2002	Patent
9	Dry type cleaning system and dry type cleaning method of sintering exhaust gas	10-0660234	12-14-2006	Patent
10	Single high voltage recognition method high speed electrostatic dust-collection device and its electric dust-collection method	10-0871601	12-26-2008	Patent
11	Ceiling-attached dust collection system and management method using this	10-0960104	05-19-2010	Patent
12	Single cover structure of dust collector and dust collector equipped with this	987197	10-05-2010	Patent

* The above patent was first acquired by KC Cottrell, but transferred to KC Green Holdings in the course of company split off.



Knowledge Management With the goal of strengthening the core capacities of employees and enhancing production efficiency, KC Cottrell introduced the systematic knowledge management system called K-ONE*. Currently, KC Cottrell saves project results in the project room (CoP : Community of Practice) by category, and spreads the knowledge management culture of sharing these accumulated knowledge through a knowledge bank.

* KC Cottrell named the knowledge management system "K-ONE" to represent its goal of 'gathering all the knowledge of all employees in the KC Network as one'.

	Productivity Introduction Stage Jul 2012~Dec 2013	Collaboration Development Stage Jan 2013~Dec 2015	Strategy Settling Stage Jan 2016~
Strategy	• Identify status quo of knowledge management and determine core work process per business department • Establish long-term knowledge management development plans	• Refine and improve core knowledge management system(Re-organize the knowledge based on the core capacities)	• Core knowledge-process-performance delivery
Knowledge	• Utilize Knowledge Bank and Maximize accumulation · utilization of knowledge	• Create process-oriented knowledge through collaboration	• Develop solutions for environment-friendly EPC business from the knowledge
Process-Organization	• Promote the precesses of knowledge management	• Promote management innovation through active suggestion · collaboration	• Redesign process and knowledge management system based on the experiences from proliferation and collaboration
Culture-System	• Expand knowledge sharing · trust culture	• Spread creative learning culture	• Spread performance-oriented culture together with knowledge management

Video Conference System KC Cottrell introduced an integrated communication system for online video conferences using both PCs and mobile devices. It can save time and the expenses incurred by frequent overseas business trips. In addition, it enables efficient communication by sharing and editing documents simultaneously, which results in enhancing productivity significantly.

| KC Cottrell's 5S Activities |

KC Cottrell is implementing 5S activities as part of its management innovation movement. The 5S activities is to boost competitiveness through productivity enhancement and quality improvement by streamlining the work processes. All employees are encouraged to participate in 5S activities and to spread positive and creative corporate culture.

Upon commencing the 5S Movement in November 2011, the '5S activities operation guideline' was enacted to pursue continuous 5S activities. The activities have been implemented according to the operation guideline since then. 5S activities are made up of arranging, organizing, cleaning, cleanliness and habituation. Regular inspection and improvement activities are being carried out by areas according to the 5S activity process.

5S Activity Process

Organization of operating committee ➤➤ Establish road map · construct operating cycle ➤➤ 5S-Sector designation · 5S activities ➤➤ 5S inspection and improvements ➤➤ 5S evaluation and compensation

5S Road Map

There are currently 11 5S-Sectors. 5S activities are being accomplished every month, and a series of reports, including 5S activities report, the spection sheet, and improvement plans are submitted to the operating committee. The operating committee conducts quarterly and year-end assessments of the 5S-Sectors, and the results of the evaluations are shared company-wide, as well as provide incentives to employees / teams depending on the evaluation scores.

Introductory Stage (2008~2011) Practice Improvement System	➤➤	Stabilizing Stage (2011~2014) Continuous Operation System	➤➤	Mature Stage (2014~) Creative Improvement System
Relay practice activities		5S operating standard system		5S improvement theme activities

- 29 Environmental Management System
- 31 Environment-Friendly Businesses
- 33 Environmental Pollution Management

03 Green Business

The CO₂ emission reduction through solar electricity generation is 12,956 ton, which has the same effect as planting 925,457 cedar trees.



Environmental Management System

Environmental Management System

KC Green Holdings set a goal to contribute to preservation of the global environment. To achieve this goal, KC Green Holdings established environmental management strategies/policies per subsidiary and acquired environmental management system certifications(ISO 14001). Some subsidiaries are establishing environmental management visions and strategies integrated with the management strategies as environmental companies. They also have designated organization and action plans for environmental management(KC Glass & Materials - Safety Environment Quality management team (SEQ) etc).

The environmental management strategies and policies of KC Green Holdings consist of environmental regulatory compliance and environmental management activities, which include environmentally friendly facilities installation, communication, and regular environmental impact assessment and reviews. Compliance with environmental laws as well as regulations is the basic policy of KC Green Holdings' environmental management. In the case of oversea subsidiaries, efforts are being made to include the environment-related standards of their local country in their environmental management. For example Nol-Tec Systems is striving to observe health, safety and environmental laws and regulations both within and outside of the company. Furthermore, KC Green Holdings is striving to share environmental information on a regular basis so that all employees can become well versed in the environmental management system. Also, some subsidiaries such as KC Cottrell and KC EcoEnergy release their environmental management policies not only to employees, but also outside stakeholders.

| Environmental Management Policies* |



* Some subsidiaries are establishing policies and practicing them to fit their management activities based on the environmental management policies of KC Green Holdings. (Ex. KC Enviro Services, KC EcoEnergy)

Environmental Management Certifications and Awards by Subsidiaries

ISO 14001(environmental management system) certification	11 companies(KC Cottrell(including plant)), KC Cottrell US, Lodge Cottrell UK, KC Enviro Services, KC Landfill Service, KC Enviro Construction, KC Hanmi Environment, KC EcoEnergy, KC Glass & Materials, ClestraHauserman, KC Envirotech E&C(Fushun)
Excellent recycled product GR certification	1 company(KC Glass & Materials)
Green technology certification	2 companies(KC Cottrell, KC Glass & Materials)
Clean workplace certification	1 company(NWL Pacific)
CE(Conformité Européene) certification*	1 company(NWL Pacific)
Excellent company in 'industrial sector emissions trade pilot project' evaluation	1 company(KC Glass & Materials)

* European specification conditions related to consumer Health and Safety, hygiene and environmental protection

| Environment Communication |

KC Green Holdings is striving to communicate using various channels in order to share environmental information with both internal and external stakeholders. Particularly KC Cottrell introduced its main environmental technologies and businesses through exhibitions and expositions in 2013 and communicated with domestic and international stakeholders related to the environment.

- International environmental industry technology and green energy exhibit (ENVEX 2013) (KC Cottrell)
- 2013 international, environmental energy industry exhibit(ENTECH 2013) (KC Cottrell)
- 5th Korea-China Green Economic Cooperation Forum(KC Cottrell)
- CIEPEC 2013(The 13th China International Environmental Protection Exhibition and Conference) : (KC Cottrell, KC Cottrell China)
- Re-Tech 2013(International Recycling Waste Management, Waste to Energy 2013) (KC Cottrell)
- RWM 2013(Resource efficiency and Waste Management solutions) (Lodge Cottrell UK)
- ICESP 2013(International Conference on Electrostatic Precipitation) (Lodge Cottrell India, Lodge Cottrell UK)
- IGEM 2013(International Greentech& Eco Products Exhibition & Conference Malaysia) (KC Cottrell)



Environment-Friendly Businesses

As a leader of the environmental industry, KC Green Holdings spearheads developing comprehensive environmental management system. The company is also involved in green business that develops green product technologies and services. We are committed to develop environment-friendly technologies to reduce effluents and wastes. At the same time, we are to develop reliable renewable energy solutions for stable energy supply in our ceaseless efforts to maintain our environment for the future.

Environment-friendly Technologies

Technology Innovation in the Resource Recycling Sector When the KC Glass & Materials produce new glass bottles, KC Glass & Materials is mixing up to 80% of waste glass with new glass material. KC Glass & Materials was recognized for its green technologies that produce safe and high quality recycled glass bottles and became the first in the container glass industry to receive GR certifications*. We will continue to strive to reduce dependency on natural resources; consequently, we secure a stable supply of materials, and reduce cost through technology innovation in the resource recycling sector.

* GR (Good Recycled Product)
Certification : Government certification for recycled products having good quality through resource recycling green technology development to contribute in low-carbon green growth by encouraging recycling of resources and saving energy

SRF(Solid Refuse Fuel) and Steam Production KC EcoEnergy is sorting an inflammable material among the waste, crushes and processing it in order to produce fuel(SRF) and KC EcoEnergy is preparing a system for energy recovery from waste when the steam generated during the process. Up to 240 ton of SRF can be produced per day and 30 ton of steam per hour can be produced at the same time. Plans are being made to produce high quality fuel using wastes and electricity through low-pressure steam power using waste heat. This is a great example of breakthrough in environmental technologies that turn wastes into resources.

Renewable Energy-Solar Power Plant

For solar power generation projects in 2013, the Yeonggwang saltern Solar Power Plant(11MW), CMK Changwon Solar Power Plant(3MW), and West Busan automobile parts sales complex solar power Plant(3MW) were constructed. In particular, the Yeonggwang Power Plant that used the closed saltern received high praise for the environment-friendly site use. In addition to the construction of power plant, we are also taking part in operation and management(O&M) business by being consigned completed solar power plant. This is a service that guarantees stable power with high efficiency and currently the Busan Shinho Solar Power Plant(20 years) Yeonggwang saltern solar power plant(20 years), GMK solar power plant(15 years) and Gimhae Myeongdong water purification center(15 years) are being operated and managed. The total output of power plant managed by KC Solar Energy is 30,577,562kWh. The CO₂ reduction by the solar power generation is 12,956 ton, which has the same effect as planting 925,457 cedar trees. In addition to reducing pollutants, and greenhouse gases, we contribute to address the global climate change.



Busan Shinho Solar Power Plant, 20MW




GMK Changwon Plant Solar Power Plant, 3MW



Yeonggwang Saltern Solar Power Plant, 11MW




Environmental purification includes environmental pollutants such as construction wastes, waste oil and waste water, which are prevention activities of environmental pollution. The amount of waste treated through the environment-friendly projects in 2013 was **1,017,705** ton.


Waste recycling converts various construction wastes such as waste wood, plastic and steel into useful resources. The amount of waste recycling by each affiliate was **182,690** ton.


Waste heat(steam) generated during incineration is reused to conserve energy. The total amount of energy recycled through environment-friendly businesses was **154,837** ton.

Environment-friendly Business Performance

KC Green Holdings practices waste treatment and recycling, energy conservation, and environmental purification activities through environment-friendly businesses by each of its affiliates.

Subsidiaries	Section	Contents	Treatment /Production	Unit
KC Enviro Services	Environmental Restoration	Waste incineration	39,992	ton
	Energy Recovery	Waste heat(steam) recovery	68,256	
	Waste Recycling	SCR catalyst regeneration	920	m³
KC Landfill Service	Environmental Restoration	Waste landfill	673,492	
KC Enviro Construction	Environmental Restoration	Waste treatment	55,000	
	Waste Recycling	Construction waste recycling (Including aggregate, sand, scrap metal, non-ferrous metal, waste plastic, waste wood, etc)	39,378	
KC Hanmi Environment	Energy Recovery	Waste heat(steam) recovery	35,500	
	Environmental Restoration	Waste incineration	22,834	
		Waste oil	15,033	
KC EcoEnergy	Environmental Restoration	Waste water	44,171	
		Waste incineration	19,420	
	Energy Recovery	Construction waste treatment	72,775	
		Waste heat(steam) Recovery	46,701	
Veolia ES&KC Ecocycle	Waste Recycling	Construction waste recycling	45,456	ton
	Environmental Restoration	Waste treatment	58,837	
		Using waste plastic as fuel(RDF, RPF, EPR)	57,013	
		Waste glass recycling	40,807	
KC Glass & Materials	Environmental Restoration	Sales of wastes (Waste mold, scrap iron, vinyl, waste paper, etc)	36	
		Utilization of underground water of coolant and re-circulation of cooling water	81,206	
		Sewage	15,980	
		General wastes (waste water treatment, waste resin)	31	
	Energy Recovery	Designated wastes(dust, waste oil)	140	
		Installation of waste heat boiler (Reduce energy expenses)	4,380	
		Installation of waste heat boiler (Green house CO2 reduction amount)	34	tCO2
	Renewable Energy Production	Fuel conversion greenhouse CO2 reduction amount	4,498	
		Solar energy sales	162,688	kwh

Environmental Pollution Management

Environmental Management Practices

KC Green Holdings provides all employees with environmental education to make them understand the environmental management system, and the system is eventually embedded across departments. KC Green Holdings strives to practice efficient energy use, pollution prevention, and minimization of wastes throughout all procedures of purchasing, production and incineration. Lodge Cottrell UK, Nol-Tec Systems, KC EcoEnergy, and ClestraHauserman have programs to save resources, energy consumption, and minimization of waste as well as recycling & reusing.

Efforts to Reduce Environmental Impact during Production Activities

KC Glass & Materials switched the materials of the packaging top board to PVCs that can be used semi-permanently. Also, the number of use of coating oil to coat the product mold was reduced to not only lower costs, but also to minimize environmental impact during the production process. Besides, KC Hanmi Environment introduced a circulation system to reduce the amount of water used in steam condensation and boiler cooling, while installing inverters in major facilities to lower the use of electricity.

Greenhouse Gas Reduction Activities

KC Glass & Materials calculates the most efficient logistics vehicle intervals to minimize the frequency and distance for transportation. The optimization for transportation enables to reduce greenhouse gas emissions effectively and transportation costs. Furthermore, use of company buses and city buses are encouraged to minimize employees from driving their personal vehicles. The effects on the detailed operation processes of business activities are also taken into consideration. Through such efforts, KC Glass & Materials was selected as an outstanding company in the ‘industrial power sector emissions trade system pilot project’ carried out by the Korea Energy Management Corporation. Such achievements were the results of the efforts and hard work to reduce greenhouse gases.

Resource Use Management*

Energy Usage				Unit_TJ
Section	2011	2012	2013	
Energy Usage	656	787	907	
Fuel Energy(LNG, Diesel, etc)	286	331	343	
Electric Energy	332	415	463	
Etc(Renewable energy, etc)	37	40	100	

※ In 2012, 13 companies and in 2013 20 subsidiaries reported KCGH, KCAF, NTKR, KCMS, KCCN, LCIN, KCVN, KCTW, NTS, KCES, KCLS, KCEC, KCHM, KCEE, VEOLIA, JDKC, KCGM, CLESTRA, KCFS, NWL

Water Usage				Unit_Ton
Section	2011	2012	2013	
Total	353,880	387,459	397,048	

※ In 2012, 13 companies and in 2013 18 subsidiaries reported KCGH, KCAF, NTKR, KCMS, KCCN, LCIN, KCVN, KCTW, NTS, KCES, KCLS, KCEC, KCHM, KCEE, JDKC, KCGM, CLESTRA, KCFS

Pollutant Management

Waste Water Effluent in Water Quality

Section		2011	2012	2013	Unit
Total	COD	93.8	52.8	103.8	mg/l
	BOD	33.8	25.4	19.4	
	T-N	68.0	69.6	105.6	
	T-P	2.1	0.6	1.1	

※ 5 subsidiaries reported the same as the previous year KCMS, KCES, KCHM, KCGM, CLESTRA

Wastes Generated

Section		2011	2012	2013	Unit
Total	Total Treated Volume	22,638	24,876	105,762	ton
	General Wastes	18,649	19,966	101,903	
	Designated Wastes	1,242	1,516	3,859	

※ In 2012 8 companies and in 2013 11 subsidiaries reported KCAF, KCMS, KCES, KCLS, KCHM, VELOIA, KCEE, KCGM, CLESTRA, KCFS, NWL

Greenhouse Gas Emissions

Section		2011	2012	2013	Unit
Total	Total Emissions	90,372	86,733	160,662	tCO ₂ eq
	Direct Emissions	81,333	72,410	141,405	
	Indirect Emissions	9,039	14,323	19,239	

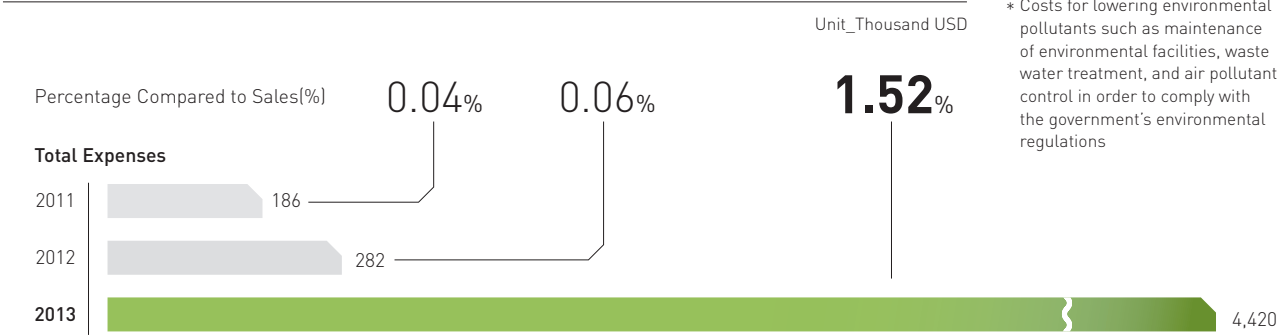
※ In 2012 4 companies and in 2013 7 subsidiaries reported KCMS, KCES, KCHM, KCEE, VEOLIA, KCGM, CLESTRA

Air Pollutant Emissions

Section		2011	2012	2013	Unit
Total	NO _x	121.7	114.4	129.1	ppm
	SO _x	46.5	41.0	36.2	ppm
	Particulates	5.7	8.4	26.5	mg/m ³

※ In 2012 4 companies and in 2013 7 subsidiaries reported KCMS, KCES, KCHM, KCEE, VEOLIA, KCGM, CLESTRA

Environmental Protection Expenses*



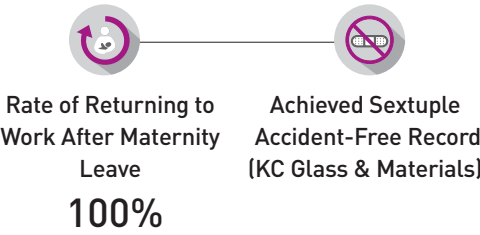
※ In 2012 3 companies and in 2013 6 subsidiaries reported KCMS, KCES, KCLS, KCHM, KCGM, CLESTRA

* Costs for lowering environmental pollutants such as maintenance of environmental facilities, waste water treatment, and air pollutant control in order to comply with the government's environmental regulations



36 Partner Companies
38 Client Companies
40 Employees
44 Community

04 Harmonious Relationships



Partner Companies

Mutual Growth

KC Green Holdings operate various activities such as meetings, workshops, and training sessions for the mutual growth between subsidiaries and partners. KC Cottrell discusses methods for joint growth with major partners through regular meetings and provides the opportunity to listen to opinions. As KC Cottrell was able to gain its footstone to grow into a strong medium-sized company through POSCO's mutual growth program, it is striving to make significant achievements through such activities.

Mutual growth workshops are held at least once a year at KC Glass & Materials to share product analysis results with partners to improve quality and to provide directions for improvement. Through such mutual efforts, employees are given bonuses depending on the improvement management performance. Also, KC Network companies are continuously communicating with partners through regular and special meetings. KC Cottrell Anseong factory provides annual health checkup services to employees of partner companies as a way of establishing mutual trust. The service enhances the perception of mutual growth through the belief of 'all parts are an organic body aiming at the same goal'.



Annual Health Checkup for partner companies at the KC Cottrell Anseong Factory

KC Glass & Materials Mutual Growth Meeting

In order to strengthen the competitiveness of partners, KC Green Holdings conducts various supporting activities such as training programs, process innovation consulting, technical support, and etc. In addition, subsidiaries such as KC Cottrell China and Jord KC are providing technology supports to their partners. The environmental service sector and environmental manufacturing sector are also sponsoring and supporting partner companies' events.



**KC Green Holdings
has always put
safety as its utmost
priority.**

Fair Trade

KC Green Holdings follows the standard contract as per the Fair Trade Act. KC Network companies have voluntary programs to ensure fair trade. KC Cottrell has constructed a fair and transparent procurement system using an electronic bidding system. All bidders are ensured to have same opportunities and confidentiality on budget information while bid prices is thoroughly maintained. KC Cottrell US sets fair payment terms as part of its plans for win-win management, and also provides fair opportunities for project orders, while voluntarily complying with local purchasing policies. In order to ensure fair trade, KC Glass & Materials converted the payment method to purchase cards and digital bills as part of its efforts to minimize burdens of vendors.

Fair Trade All affiliates of KC Green Holdings promise customers and partners clean and transparent transactions, and we will exercise these. KC Cottrell US is participating in a fair trade agreement program with the United States government. Through this, investors are shown that there are no unfair trades as it continues its activities that emphasize fair trade.

| Win-win Cooperation and Fair Trade Agreement(Summary) |

The purpose of this agreement is to establish a fair trade order in business transactions between KC Green Holdings and Partners, while pursuing mutual growth through Win-win cooperation, and it includes the followings.

Observance of Laws

Provide relevant laws for fair trade and win-win cooperation to partners, and observe the laws and conventions diligently

Guarantee of Fair Trade

Release all the relevant policy regarding fair contract, bid award, and operation to all the partners and make utmost efforts to prevent any unfair transactions

Win-win Cooperation Support

Offer various programs(flexible financial support / payment conditions, technical support, quality control, training, management consulting, purchase price adjustment according to the fluctuation of raw materials prices, prohibition of oral / verbal contracts, purchase / sales support, operation of partner support team and, etc.) to enhance partners' competitiveness such as financial soundness, technologies and technical specialties.

Other codes of conduct shall be observed by mutual parties with mutual efforts. If not stipulated in this agreement, either party will raise issues and shall discuss to mutual agreement.



Client Companies

KC Green Holdings carries out activities to improve customer satisfaction per subsidiary. They are receiving trust from clients thanks to the top-notch quality and technology, as well as timely delivery. KC Green Holdings communicates with clients through technical consulting, maintenance services, joint R&D, and customer satisfaction surveys to respond to the demands of customers. We will continue to communicate ceaselessly to achieve customer satisfaction.

Quality Management

KC Cottrell Vietnam was recognized for the performance and quality of the projects carried out in Vietnam and is receiving continuous maintenance service requests. This can be viewed as the results of trying to provide value through reliable and stable quality to customers in response to environmental regulations. The average defect rate in the past three years was very low at around 3%. The defect rate goal is currently set at 'zero', and we will continuously strive to achieve this.

Product Responsibility Activities KC Green Holdings constructed a quality management system, acquired ISO 9001 certification and proved its quality improvement and quality responsibility activities. Thirteen subsidiaries including KC Cottrell, Lodge Cottrell UK, KC Enviro Services and KC Glass & Materials acquired ISO 9001(Quality Management System) certifications in line with KC Green Holdings' goal to have all the Network subsidiaries certified. KC Glass & Materials is implementing various quality improvement activities such as introducing product packaging room, upgrading inspection equipment, and improving the coating system. Furthermore, KC Glass & Materials took an initiative for product responsibility by subscribing product liability insurance and conducting product safety tests twice a month. Other subsidiaries also run voluntary product responsibility activities such as monthly quality meetings and inspections, product naming, and process management system operations. Until now, there has been no instance of violating laws or regulations in supplying products among KC Network companies.

Quality Certification Acquisitions



ISO 9001

13 Companies KC Cottrell(including factory), KC Cottrell China, KC Cottrell Vietnam, Lodge Cottrell UK, KC Enviro Services, KC Enviro Construction, KC Glass & Materials, Jord KC(AS / NZS, Australia), Clestra Hauserman, KC Envirotech E&C(Fushun), NWL Pacific, KC Air Filtertech(Acquired on Apr. 2014)

Customer Management

Technical Consulting and Maintenance Services Based on the accumulated technologies and knowhow of KC Green Holdings, KC Network companies provide technical services such as consulting, inspection and diagnosis of client's environmental facilities. Technical services include analysis reports on existing operation and maintenance programs as well as detailed plans on an overhaul of facilities to minimize downtime of clients' facility, and to maximize clients' competitiveness. Also, KC Green Holdings offers technical development and services that respond 100% to customer requests even after contract awards to build trust for clients. In particular, KC Cottrell is aware that stringent environmental regulations burden companies with their old facilities. Thus, KC Cottrell offers facility retrofits in response to customers' needs. Starting with the revamping FGD system at Hadong Thermal Power Plant, KC Cottrell successfully secured all the biddings with 100% success rate and pioneers a new market of 'FGD System Revamping Service'.



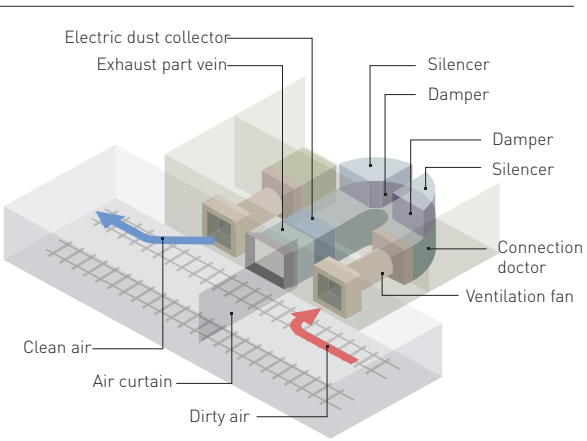
Yeongheung Unit 1-4 Desulfurizing · Denitrifying Facility Performance Improvement

Joint R&D with Client Companies With the technical expertise and experiences for customer satisfaction, KC Cottrell proposes "Joint R&D projects" to clients for Win-win relationships for both clients and KC Cottrell. The most representative examples are the 'city railway tunnel dust collector development' together with Korea Metro and 'CO2 collection technology development and its utilization plans' with POS HiMetal.



CO2 collection technology development with POS HiMetal – development of dry sorbent

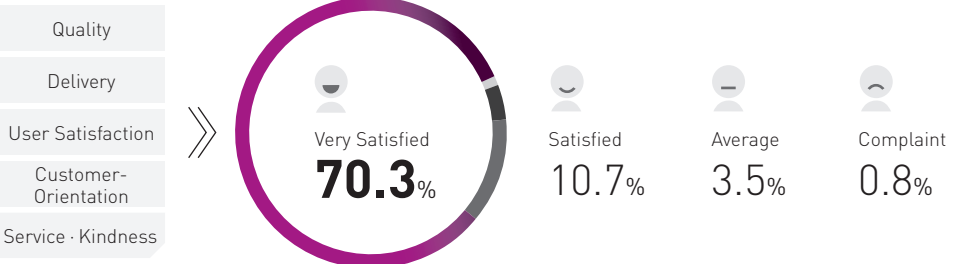
Tunnel Air Quality Improvement System Illustration



Customer Satisfaction KC Cottrell runs quarterly customer satisfaction surveys with major clients to continuously respond to customers' ever-changing needs and expectation. The survey items are in the five areas; quality, on-time delivery, operator satisfaction, customer-orientation, service, and kindness. The survey showed that 70% answered that they were very satisfied and negative responses were very low. Furthermore, communications are made continuously such as interviews to raise customer satisfaction. Customer opinions such as customer needs and complaints are also being effectively responded to.

* KC Green Holdings has no violations on the protection of customer privacy.

Satisfaction Examination



Building Continuous Customer Relationships - POSCO |

Attended 2013 Excellent Vendor Invitational New Year Meeting

POSCO is famous for its strict vendor evaluation on performance, quality, price and delivery. By providing high quality equipment and satisfactory services to clients, we are maintaining close relationships with them. Furthermore, the 'World Best World First' (item : ESP for incineration process) pursued together with POSCO through a technological MOU was evaluated to have reached its index in September 2013. KC Cottrell was the first to be selected as environmental facilities and it was an opportunity for this facility to be recognized for its competitiveness.



Appreciation plaque received at the outstanding vendor invitational New Year meeting



Employees

Human Resource Management

KC Green Holdings places 'Human Resource' as one of its three core values and emphasizes the importance of human resource management. Respect of human rights is the basic principle for human resource management and KC Green Holdings forbids forced labor and child labor, and abides by domestic and foreign norms related to human rights and labor. With fair human resource management system and training programs, KC Network companies are striving to practice sustainable human resource management.

Recruiting Talented Personnel As of the end of 2013, a total of 1,182 employees work at KC Green Holdings(including all subsidiaries). 82%(966) of them are full-time employees and 18%(216) are contract / part-time employees. The number of female employees is 150(13%) only, but the number of female employees is growing every year. In addition, through efforts to employ more local talents in foreign branches such as in India and Vietnam, the local employment rate is also growing. KC Green Holdings does not discriminate people for gender, religion, or social status and prohibits any discrimination in hiring and contracting employee, or in personnel management processes.

Employee Status

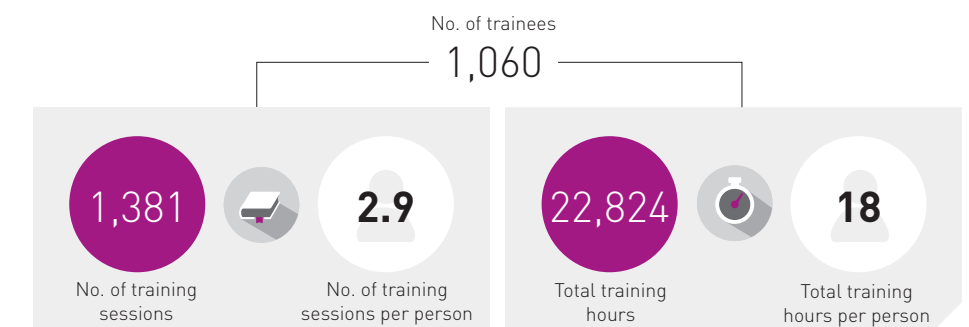
Section	Category	2011	2012	2013	Unit
Employee	Total No. of Employees	1,036	1,128	1,182	No. of persons
	Disabled	0.9	1.7	0.5	%
	Contract / Part-time	52	193	216	No. of persons
	New Employees	168	215	137	
	Average Service Years	-	7.28	6.2	Year
Retirement · Resignation	Retirement	6.5	4.4	6.3	%
	Resignation	4.9	5.1	6.2	
Female · Childbirth	No. of female employees	120	146	150	No. of persons
	No. of new female employees	16	28	26	
	No. of female managers	-	36	42	
	No. of persons using maternity leave	3	5	7	
	No. of persons using childcare leave	-	2	3	
	Return rate after childcare leave	100	100	100	

Fair Evaluation and Compensation KC Green Holdings grants fair opportunities for all employees, regardless of gender or nationality for the goal of sustainable human resource development. Evaluation processes for employee performance are transparently disclosed, and the evaluations reflect learning performance results to emphasize the development of individual capacities. In compliance with a fair wage system, there is no difference in base salary between male and female employees when they have the same grade. Furthermore, in order to guarantee stable employment, responsible employment guarantee systems are operated.

Human Resource Development

KC Green Holdings has enacted education and training regulations to foster global human resources and to support employee capacity and self-development through various educational programs. Based on the employee training ideology that the development of personal capacities is the most important for the growth of the organization, we are actively supporting all types of education. Each subsidiary has its own employee training system to provide training for all employees such as job training, self-development, internal / external training, seminars, etc. Detailed programs for employee work capacity and career development include overseas workshops and MBA support programs. KC Cottrell also operates designated training programs for new employees and local employees in overseas operations. Mentoring programs are available to help new employees quickly adapt to KC Cottrell's corporate culture and to help them enhance their work capacities through communication and collaboration.

2013 Employee Training



KC Cottrell Education System

Section	Training by rank	Work Training					Other Training				Qualification Training
	Mandatory Courses	Key Personnel Training		Outside Training			All employees				Optional
Executives	New executive and director training	Executives training					Company-wide safety education (4 times) / Sexual harassment prevention education	KMS	Mentoring activities	In-company technical training	Language education / work-related certification acquisition (optional)
Team Leaders	Team leader training	Subsidiary personnel exchange / Overseas seminar attendance, etc	Diploma acquisition course	Mandatory engineer training	Mandatory management training	Work capacity improvement training					
	New team leader training										
Seniors	Negotiation training										
Managers											
Assistant Managers	New employee orientation training										
Staff											

Health and Safety

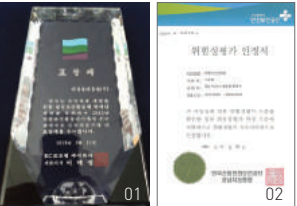
Health and Safety Management System KC Green Holdings has established health and safety management policies for each subsidiary and complies with the Labor Standard ACT for the health and safety of employees. Major subsidiaries of each business sector including KC Cottrell, KC Enviro Services, and KC Glass & Materials have acquired health and safety management system certificates. Furthermore, annual health checkups are provided for all employees for the systematic health management of employees.

Health and Safety Management System

	OHSAS 18001(Occupational Health and Safety Management System)	5 Companies KC Cottrell(including plant), Lodge Cottrell UK, KC Enviro Services, Jord KC, KC Envirotech E&C(Fushun)
	KOSHA 18001(Korea Occupational Health and Safety Management System)	4 Companies KC Cottrell(including plant), KC Hanmi Environment, KC Glass & Materials, ClestraHauserman

Health and Safety Management Performance KC Green Holdings conducts regular safety training for employees of each subsidiary in its efforts to make accident-free, safe companies. The KC Cottrell Anseong Factory carried out firefighting training with the attendance of representatives of partner companies. KC Glass & Materials also conducted joint private firefighting training to provide an important opportunity to gain initial fire extinguishing abilities. KC Hanmi Environment was recognized as an outstanding workplace in the workplace risk assessment conducted by the Korea Occupational Health and Safety Agency supervised by the Ministry of Labor in October. Meanwhile, Nol-Tec Korea is pursuing an accident-free campaign. The efforts of KC Green Holdings continue to make a safe workplace. Such efforts are being executed in all KC Network companies, and in particular, through such efforts, KC Glass & Materials has achieved quintuple period of no-accident target(1,980 days) on July 28.

KC Green Holdings carries out health and safety evaluations every year on its subsidiaries. Efforts are being made to prevent safety accidents. The level of safety perception by employees is being assessed, and their scores are revealed and awarded. In the evaluation carried out in March, KC Glass & Materials, took first place since the company conducted regular Health and Safety reviews and actively participated in improving the work environment, Aside from satisfying the standards outside of the company, internal management standards and regular evaluations are carried out to put utmost priority on safety, which is the goal of all of the companies for a safe workplace.

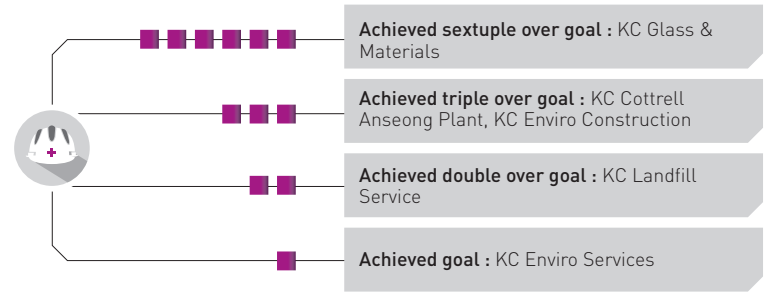


01 KC Green Holdings Affiliates Health and Safety Activity Overall Evaluation Plaque
02 Photo of risk evaluation



Joint private firefighting training

No-Accident Achievement Status



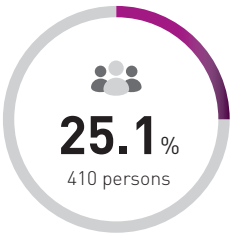
Certification for achieving accident-free target by KC Cottrell

Harmony of Work and Life

Transparent Communication KC Green Holdings has monthly meetings(First Monday Meetings) to share the management objectives so that all employees can establish the strategic business plans of each department. In addition, evaluation of completed projects and further discussion on how to improve project performance is made at the monthly meeting. Occasional lectures and seminars are provided to help employees have smooth communication among other employees and departments. This unique communication culture of KC Green Holdings is the source for its considerable growth amidst tough market competitions, and unstable business environment such as strict environmental regulation and limitations in technology licensing.



Management seminar held for all employees



2013 Labor Union Status

Labor-Management Harmony Both labor and management at KC Green Holdings are working hard with an open attitude to build labor management relations with mutual trust and respect. Results of labor-management meetings are reported to all union members and employees through intra-net-work or e-mails immediately upon coming to agreements in negotiations. Through this, KC Green Holdings not only continues mutual trust and collaboration between labor and management, but also expects to spread the culture of continuous efforts to improve the quality of life for employees and for mutual-respect as partners.

Welfare and Social Events KC Green Holdings is striving to make an attractive workplace where people want to work at through various selective benefit programs. Company runs Paid Time Off to help employees balance life and work and matches 50% contribution for retirement and national pension programs for all employees including contract employees. Furthermore, KC Green Holdings operates a wide range of social events such as sports days and hiking to help friendship, unity and health of employees.

| KC Cottrell 40th Anniversary Vacation |

KC Cottrell held a commemorative event with over 300 employees in Phuket, Thailand from November 27 to December 1 in commemoration of the company's 40th anniversary. This was a meaningful event to look back at the forty years that it took us to come here and to share a bigger dream and vision for the future.



Community

KC Green Holdings understands that the community is an important stakeholder for combining people and technologies to create a greener and cleaner environment. In this understanding, KC Green Holdings is participating in various social contribution activities in different parts of the community to fulfill its environmental responsibilities and to do its part in corporate social responsibilities. KC Green Holdings will continue to listen to the voices of the community through various communication channels for the development of the community.

Talent Development Support Activities

KC Green Holdings exercises support activities for fostering human resources such as scholarships in the community of subsidiaries, internship programs, and school-sisterhood relations. Some subsidiaries such as Hanmi Environment offer scholarships for children who are the heads of the households.

Sisterhood Relationship KC Cottrell made sisterhood relations with the Seowoon Elementary School, which is located in Seowoon-myeon, Anseong, to contribute to the development of the community in 2011. This sisterhood began with a meeting hosted by Anseong City to promote consciousness of education through ties between small schools and companies. As part of the sisterhood relationship activities, Mr. Saravanan of KC Cottrell's production team volunteered to provide English classes to students three times a week for thirty minutes before going to work. KC Cottrell conducts regular educational volunteer work to improve the educational conditions of children in the community, while striving to foster local talents.



KC Cottrell's English education for sister school



Solar power facility at soflrl the Korea Science Academy

KC Glass & Materials decided to participate in the 'Hope, Love, Sharing 1:1 Regional Children Center' sisterhood relationship project and to donate certain amount every year from 2013. They also signed an industry-academic cooperation agreement with the Pyeongtaek Meister High School in December 2011, and decided to jointly develop curricula for customized education needed by the company and on-the-job training programs. Through all the efforts to promote information exchange and joint training support, it became possible to strengthen ties with schools in the local communities and find talented human resources as well.

KC Solar Energy donated a 20kW solar power generator to the KAIST attached Korea Science Academy, which is Korea's first school for the gifted in science located in Busan in November. KOSPO and Hanwha Q Cell Korea also joined in the efforts for this facility. This not only saves 227.2 USD a year in electricity costs, but it is meaningful in that it can be used for education and research for the students.

Sharing • Sponsoring Activities

KC Green Holdings hosts donation and technical support as part of community sharing events per each subsidiary. KC Glass & Materials, KC Hanmi Environment and KC EcoEnergy provide sponsorship to events in the community such as Residents Day.

Provide support for local senior homes and Community Day events	Support Yeonsu Community Day Event	Donate rice to needy neighbors, sponsor Bongam-dong Community Day and senior center events, sponsor techno-robot contests	Donation of street paving costs for nearby local streets	Participate in and sponsor Seowoon-myeon grape festival and local sports competitions
KC EcoEnergy	KC Enviro Services	KC Hanmi Environment	KC Enviro Services	KC Cottrell Anseong Plant

In addition, KC Cottrell signed a Love Energy Sharing Agreement with the UNICEF Korea Committee and committed to contribute to the charity through performance sharing in 2012. This agreement is valid for about a year and a certain percentage of performance sharing will be contributed to the fund every time new orders from Korea Southern Power are raised. In result, on March 29, employees from seven subsidiaries assembled to donate 909,000 USD. Unlike other small and medium company social organization donations that exempted technical fees, it is a unique social return activity in that the shared incentives of small and medium-sized companies are received and funded directly to UNICEF. We promise to continue to maintain mutual cooperative relations through mutual growth, while also working on child relief activities for the world. KC Cottrell is carrying out volunteer activities through the voluntary participation of employees at the Sung-mo protection workplace from March. Vocational training is provided for severely disabled persons and these social contribution activities were carried out to provide workplaces so that they may engage in suitable productive activities.



UNICEF Korea Committee, a Love Energy Sharing Agreement



Volunteer activities, KC Cottrell



KC Cottrell year-end bazaar

In order to promote and activate the self-dependency of social companies, KC Glass & Materials signed a ‘1 company 1 social company’ sisterhood project agreement in October. The ‘1 company 1 social company’ pursued jointly by Cheonan City, nine sisterhood companies and organizations, and nine social companies was established to help with the stable establishment of social companies providing jobs to the vulnerable classes.



1 Company – 1 Social Company Agreement Ceremony Photo and Contract

In addition, KC Glass & Materials carried out regional love sharing volunteer activities for senior citizens living alone and households subject to life protection in Dorim-ri, Ipjang-myeon for community contribution activities. Employees cleaned the inside and outside of farms, conducted safety inspections such as repairing (replacing switches and other instruments) for old electric facilities, and made facility improvements to interact with the local community and help support local development.



KC Glass & Materials Love Sharing Volunteer Activities

Overseas Volunteer Activities

KC Cottrell Vietnam donated desks and chairs again this year to Ky Nam Elementary School located in Ha Tinh after making donations last year to Hai Ha Elementary School. Support for poor school facilities in areas where projects were carried out will be continued in Vietnam. In addition, Nol-Tec Systems participated in various charity events with client companies and is actively participating in social contribution activities such as sponsoring ‘Toys for Joy’, which is a toy donation event. Furthermore, KC Cottrell US participated in a charity golf tournament and Lodge Cottrell UK donated a scholarship named after Sir Oliver Lodge to Birmingham University. KC Green Holdings will continue to encourage overseas subsidiaries to enter various social contribution activities for the development and harmony with the community.



View of Ky Nam School After donating desks and chairs

Appendices

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- 53 GRI 3.1 Index
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Financial Information

Independent Auditors’ Report

To the Shareholders and
the Board of Directors of
KC Green Holdings Co., Ltd

We have audited the accompanying consolidated financial statements of KC Green Holdings Co., Ltd. and subsidiaries (the “Group”). The financial statements consist of the consolidated statements of financial position as of December 31, 2013 and 2012, and the related consolidated statements of comprehensive income, consolidated statements of changes in shareholders’ equity and consolidated statements of cash flows, all expressed in Korean won, for the years ended December 31, 2013 and 2012. The Group’s management is responsible for the preparation and fair presentation of the consolidated financial statements, and our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the consolidated financial statements of Nol-Tec Systems, Inc. and others, whose consolidated financial statements reflect 12.63% and 13.44% of total assets and 17.46% and 24.12% of total revenues of consolidated financial statements as of and for the years ended December 31, 2013 and 2012, respectively. Those consolidated financial statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for those entities, is based solely on the reports of the other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the Republic of Korea. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, based on our audits and the reports of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Group as of December 31, 2013 and 2012, and the results of its operations and its cash flows for the years ended December 31, 2013 and 2012, in conformity with Korean International Financial Reporting Standards (“K-IFRS”).



February 14, 2014

This report is effective as of February 14, 2014, the auditors’ report date. Certain subsequent events or circumstances may have occurred between the auditors’ report date and the time the auditors’ report is read. Such events or circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to the auditors’ report.

Consolidated Financial Statements

FY2013 12/31/2013 Current
FY2012 12/31/2012 Current
FY2011 12/31/2011 Current

	2013	2012	2011
1. Assets			
Total non-current assets	211,951,761,661	223,953,954,626	225,478,178,831
Property, plant and equipment-net	134,705,397,890	152,787,344,291	157,546,356,390
Investment in real estate	3,319,222,753	3,344,259,972	7,082,037,785
Investments in associates	17,172,946,720	15,085,322,124	9,817,551,590
Intangible assets	34,759,670,635	33,255,981,821	33,267,728,851
Deferred tax assets	1,253,452,663	1,285,835,155	2,448,988,268
Derivative financial assets	506,799,398	857,052,579	66,310,901
Other non-current financial assets	8,024,035,557	8,320,654,639	7,282,674,663
Other non-current non-financial assets	11,015,682,520	7,750,350,085	7,016,581,550
Other non-current non-financial assets	1,194,553,525	1,267,153,960	949,948,833
Current assets	217,982,111,124	261,351,434,065	191,345,231,293
Inventories	10,312,483,058	10,648,416,890	12,042,327,304
Account receivables-net	72,264,502,581	103,098,634,130	54,797,927,179
Due from customers for contract work	51,958,558,766	52,222,837,502	26,794,400,354
Other current receivables	21,205,107,592	25,283,151,486	14,168,370,927
Current derivative financial assets	2,047,901,263	4,069,369,927	969,145,014
Current tax assets	701,731,088	68,789,452	384,418,242
Other current financial assets	6,275,677,271	10,019,799,191	9,389,221,535
Cash and cash equivalents	53,216,149,505	55,940,435,487	72,799,420,738
Total assets	429,933,872,785	485,305,388,691	416,823,410,124
2. Equity			
Equity attributable to owners of the parent	147,324,001,786	131,799,310,907	115,227,624,517
Issued capital	11,217,490,000	11,217,490,000	11,217,490,000
Capital surplus	3,798,106,366	[939,073,262]	[920,454,747]
Paid-in capital in excess of par value	45,847,001,039	45,847,001,039	45,847,001,039
Treasury stock	[1,424,862,090]	[3,836,680,960]	0
Gain from disposition of treasury stock	1,072,049,393	9,783,632	0
Other reserves	4,811,379,573	4,829,207,023	5,917,995,758
Retained earnings	82,002,837,505	74,671,583,435	53,165,592,467
Non-controlling interests	64,702,971,586	60,423,695,724	50,613,650,473
Total equity	212,026,973,372	192,223,006,631	165,841,274,990

	2013	2012	2011
3. Liabilities			
Total non-current liabilities	60,283,967,388	81,833,728,986	83,806,467,451
Other non-current provisions	19,713,477,103	18,694,961,053	15,633,821,408
Long-term borrowing	28,654,541,459	47,308,153,852	49,745,392,000
Post-employment benefit obligations	5,503,662,113	6,763,865,455	6,501,345,760
Derivative financial liabilities	24,320,019	98,976,852	1,212,291,550
Deferred tax liabilities	2,714,377,745	5,276,507,035	4,870,002,805
Other non-current financial liabilities	3,673,588,949	3,691,264,739	5,843,613,928
Total current liabilities	157,622,932,025	211,248,653,074	167,175,667,683
Other current provisions	253,285,455	556,836,229	234,375,366
Short-term borrowings	35,456,144,567	38,582,547,317	35,059,376,320
Account payables	67,378,771,885	77,510,479,863	43,361,626,315
Other current liabilities	20,551,272,177	41,621,512,252	35,373,261,583
Advance from customers	23,533,254,185	40,989,208,817	39,452,803,320
Current tax liabilities	6,976,739,446	7,539,125,206	4,360,954,743
Derivative financial liabilities	89,364,310	323,899,182	747,381,313
Current portion of long-term liabilities	3,384,100,000	3,949,700,000	8,184,912,175
Other current non-financial liabilities	0	175,344,208	400,976,548
Total liabilities	217,906,899,413	293,082,382,060	250,982,135,134
4. Total equity and liabilities	429,933,872,785	485,305,388,691	416,823,410,124

Comprehensive Income Statement

FY 2013 From 01/01/2013 To 12/31/2013
FY 2012 From 01/01/2012 To 12/31/2012
FY 2011 From 01/01/2011 To 12/31/2011

Unit_ in Korean Won

	2013	2012	2011
1. Operating income	487,271,569,423	502,629,849,285	320,436,617,393
Sales	479,122,425,403	496,348,036,951	315,696,764,575
Gain from valuation of associates	2,268,390,674	2,195,300,846	0
Rental	5,880,753,346	4,086,511,488	1,900,798,367
Other revenue	0	0	2,839,054,451
2. Operating expenses	466,404,865,785	456,138,454,157	297,118,166,092
Cost of sales	423,260,816,180	414,174,664,707	263,298,956,279

	2013	2012	2011
Loss from valuation of associates	869,574,956	56,717,609	1,148,893,220
Other loss	0	415,779,619	0
Loss from disposition of investment	0	0	142,555,027
Selling, general and administrative expenses	42,274,474,649	41,491,292,222	32,527,761,566
3. Profit from operations	20,866,703,638	46,491,395,128	23,318,451,301
4. Other income	9,875,317,194	14,122,153,306	9,650,351,696
5. Other expenses	7,053,859,598	7,425,696,619	5,842,427,831
6. Financial income	1,229,030,695	1,227,922,083	1,133,033,153
7. Financial costs	3,481,307,496	4,406,516,597	3,876,837,866
8. Profit before income tax	21,435,884,433	50,009,257,301	24,382,570,453
9. Income tax expense	6,962,105,683	11,695,322,766	5,111,365,915
10. Profit for the year	14,473,778,750	38,313,934,535	19,271,204,538
11. Other comprehensive income(loss)			
Items that will not be reclassified subsequently to income(loss) :	(584,625,242)	(599,145,402)	(1,059,335,554)
Remeasurement factor on defined benefit plans	(584,625,242)	(599,145,402)	(1,059,335,554)
Items that will be reclassified subsequently to income(loss) :	(234,356,780)	(2,061,413,189)	(377,084,499)
Currency translation differences	(291,105,203)	(2,038,454,395)	(518,604,718)
Equity changes in equity method investee	(26,844,575)	(307,594,858)	365,859,113
Net change in fair value of financial assets	71,784,084	86,131,063	4,944,636
Net change in fair value of interest swap	11,808,914	198,505,001	(229,283,530)
Total other comprehensive income(loss)	(818,982,022)	(2,660,558,591)	(1,436,420,053)
12. Total comprehensive income	13,654,796,728	35,653,375,944	17,834,784,485
13. Profit attributable to :			
Owners of the parent	9,269,777,714	23,706,324,338	9,817,113,928
Non-controlling interests	5,204,001,036	14,607,610,197	9,454,090,610
Profit for the year	14,473,778,750	38,313,934,535	19,271,204,538
14. Total comprehensive income attributable to :			
Owners of the parent	8,714,243,788	21,870,952,987	9,490,877,864
Non-controlling interests	4,940,552,940	13,782,422,957	8,343,906,621
Total comprehensive income for the year	13,654,796,728	35,653,375,944	17,834,784,485
15. Earnings per share(in Korean Won)			
Basic	418	1,057	438
Diluted	418	1,057	438

Independent Assurance Statement

The Business Institute for Sustainable Development(BISD), led by the Korea Chamber of Commerce & Industry, was requested to serve as an independent 'third-party assurance institute' for the '2014 KC Green Holdings Sustainable Management Report'(hereinafter 'Report'), and submits the assurance statement as follows.

Purpose The purpose of this assurance report is to identify any major errors or biases in the report, to conduct independent assurance procedures to determine whether the sustainable management issues of KC Green Holdings were appropriately reported, and to accordingly present an assurance opinion.

Responsibilities and Independence This report contains matters on KC Green Holding's sustainable management efforts, achievements and future plans in 2013. All responsibility regarding the drafting of the report lies with KC Green Holdings. In conducting assurance procedures on the report and providing assurance opinions to the board of directors, BISD has no management-related interests in profits with KC Green Holdings, aside from carrying out third-party assurance for maintaining independence and autonomy.

Assurance Standards and Restrictions BISD reviewed the report based on the 'principles for defining report content'(stakeholder inclusiveness, sustainability context, materiality and completeness) and applying the Global Reporting Initiative(GRI). BISD referred to the principles for defining report quality'as guidelines to ensure the appropriateness of the report's contents. The scope of the assurance work was limited to the company's performance in 2013 data from previous years and data indicated online were excluded from assurance. Physical inspections were conducted at the head office located in Seoul, among the many offices in Korea and abroad. Also, the greenhouse gas data verified by another third party were not included in this assurance engagement.

Major Assurance Procedures BISD did not take part in stakeholder activities and conducted assurance on through interviews with company staff and reviews of relevant documents provided by the company. The main assurance procedures include the following :

- Review of application of company's internal sustainability report standards
- Review of Korean report information and information collection process
- Review of report contents, policies and systems related to the materiality test and material issues
- Conducting physical inspection and interviews with employees(at the head office)

Opinions BISD performed the assurance engagement in accordance with the procedure identified above, and modified the report if and when deemed necessary. Based on the principles for defining the contents and quality of GRI, it was judged that there were no significant errors in the report.

Based on the assurance engagement carried out, BISD confirmed the following :

Stakeholder inclusiveness : Does organization identify its stakeholders and explain how it has responded to their reasonable expectations and interests?

- KC Green Holdings defined the stakeholders and collected the opinions and major interests of customers, employees, partners, NGO/government/press, shareholder/investors, and community through different communication channels.
- During the course of collecting issues through stakeholder communication channels, KC Green Holdings did not omit major stakeholder groups or issues.

Sustainability context : Does the report present the organization's performance in the wider context of sustainability?

- KC Green Holdings identifies the environmental and societal conditions of the area where business activities are carried out, and disclosed these findings through a sustainability report.
- KC Green Holdings used objective information and measurement methods in the report contents.

Materiality : Does the report cover aspects that reflect the organization's significant economic, environmental and social impact or substantially influence the assessments and decisions of stakeholders?

- KC Green Holdings confirmed the major sustainable management issues through amateriality test process and the opinions collected through stakeholder surveys were included in the course of the analysis.
- KC Green Holdings identified the effects of its business activities on stakeholders and has conducted activities in response to this, disclosing the performance during the reporting period.

Completeness : Does the report include coverage of material aspects and their boundaries, sufficient to reflect significant economic, environmental and social impact, and to enable stakeholders to assess the organization's performance in the reporting period?

- KC Green Holdings determined the contents of the report with consideration of the scope of influence of the organization and did not omit any information that could have a major impact on stakeholder evaluations or decision-making or on the economy, environment or society.

Recommendations BISD suggests the following recommendations within a scope that does not affect the assurance results :

- In the case of publishing reports after 2015 while applying GRI standards, each report should be drafted in accordance with the new GRI standards, called G4. The G4 guidelines recommend making reports based on major issues according to opportunities, threats and impact. Therefore, it is necessary to draft reports in the future according to the new standard. In particular, we hope that evaluations on sustainable management activities, and future plans based on these, are included in the report.
- The fact that the number of female employees and managers is continuously growing at KC Green Holdings is very encouraging. We hope that this trend is reflected in the board of directors in the future, so that there will be a higher number of women in the board of directors as well. Furthermore, we hope that the roles and responsibilities of the board of directors are strengthened in order to establish a process where the board of directors receive and assess reports on sustainable management achievements.
- In October of this year, the European Union(EU) announced the EU CSR Directive for reporting non-financial performances, and there are active discussions about legislation on the social responsibility sector of companies with in Korea as well. As KC Green Holdings actively engages in business in Korea and abroad, systematic risk management for the non-financial sector will also grow in importance. We recommend that KC Green Holdings identify the major issues for the community and people in areas where it sbusiness is located and make efforts to resolve problems. If necessary, we recommend establishing a guideline that is regularly evaluated.

Especially in Korea, Health and Safety are being discussed as major issues of interest among society constituents. We hope that KC Green Holdings also strengthens its activities on industrial safety and employee and community health and reports such activities.



November 2014

GRI 3.1 Index

Category	Index NO.	Contents	Level of Application	Page	Note
Strategy and Analysis	1.1	Statement from the most senior decision-maker of the organization.	●	4-5	CEO Message
	1.2	Description of key impacts, risks, and opportunities.	●	21	Mentioning of Safety, Information System and Possible Risks
Corporate Profile	2.1	Name of the organization.	●	2	KC Green Holdings
	2.2	Primary brands, products, and/or services.	●	8, 14-15	Main Businesses
	2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	●	9	
	2.4	Location of organization's headquarters.	●	2	Location of Head Office=Korea
	2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	●	12-13	Businesses around the World(Sales)
	2.6	Nature of ownership and legal form.	●	8	Launched as Holdings Company
	2.7	Markets served(including geographic breakdown, sectors served, and types of customers/beneficiaries).	●	12-13	Businesses around the World(Sales)
	2.8	Scale of the reporting organization.	●	8	1,182 employees, total assets 3901MM USD
	2.9	Significant changes during the reporting period regarding size, structure, or ownership.	●	6	2013 Highlights (Established Nal-Tec Korea, KC Air Filtertech)
	2.10	Awards received in the reporting period.	●	7	Acquired risk assessment outstanding workplace certification Outstanding company in emission trading project assessment for industrial generator sector
Reporting Media Variables	3.1	Reporting period(e.g., fiscal/calendar year) for information provided.	●	2	2013 Fiscal Year(1/1-12/31)
	3.2	Date of most recent previous report(if any).	●	2	Third issue following 2013
	3.3	Reporting cycle(annual, biennial, etc.)	●	2	Publish every year
	3.4	Contact point for questions regarding the report or its contents.	●	2	Head Office Planning Team, Sangamsan-ro, Mapo-gu
	3.5	Process for defining report content.	●	2,18	GRI Guideline, Questionnaire, Opinion Form, Dialogue with Stakeholders, etc
	3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	●	2	All subsidiaries of KC Green Holdings
	3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	●	2,33	Focusing on the domestic workplaces of all KC Green Holdings subsidiaries and includes overseas workplaces for some activities and performances. There are subsidiaries that were not reported for collecting energy data in relation to environmental management
	3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	●	11	Established subsidiary(2013 KC Cottrell), joint venture(Entered wind power industry as joint venture with Invall in 2010: KC Green Energy)
	3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	●	2	International Financial Reporting Standard (IFRS)
	3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g.,mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	●	2	Reporting period, 3 years
	3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	●	2,33	In the event that there are differences in the scope of reports, mention that it is explicated in each report/ Mention changes of targets for measurements from 13 in 2012 to 20 subsidiaries in 2013
	3.12	Table identifying the location of the Standard Disclosures in the report.	●	3	Appendix Financial Statement
	3.13	Policy and current practice with regard to seeking external assurance for the report.	●	2	Review by third party outside expert
Governance, Responsibility, Participation	4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	●	20	Governance
	4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	●	20	CEO=Committee chairperson Possible to infer from table
	4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	●	20	Number of outside executives
	4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.			
	4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	●	20	Wage ceiling determined at general stakeholders meeting
	4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	○		
	4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	○		

Category	Index NO.	Contents	Level of Application	Page	Note
Governance, Responsibility, Participation	4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	●	2	Enter company vision and mission
	4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	●	21	Risk Management Committee (Chairperson : CFO)
	4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	○		
	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	●	21	Construction of risk management process
	4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	●	56	Appendix Awards
	4.13	Memberships in associations [such as industry associations] and/or national/ international advocacy organizations in which the organization : * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	●	56	Appendix Awards
	4.14	List of stakeholder groups engaged by the organization. • NGOs • Customers • Employees and Labor unions • Community • Shareholders and Investors	●	17	Customers, Partners, Employees, Government, Community, Shareholders
	4.15	Basis for identification and selection of stakeholders with whom to engage.	①	17	Identify stakeholders
	4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	●	17	Major issues of interest and communication channels
	4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	①	18	Indicate importance assessment
Economy	EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	●	23-24	Creation and distribution of indirect economic value
	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	○		
	EC3	Coverage of the organization's defined benefit plan obligations.	●	43	Provide 50% of severance and national pension for all employees
	EC4	Significant financial assistance received from government.	●	25	The indicated project was carried out with government funding of 4.8 MM USD by the KC Cottrell Technology Research Center in 2013
	EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	○		
	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	○		
	EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	○		
	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	①	24	Create indirect economic value [Partners, employees, community, etc]
	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	●	24	Creation and distribution of indirect economic values
Environ-ment	EN1	Materials used by weight or volume.	○		
	EN2	Percentage of materials used that are recycled input materials.	●	31,32	Over 80% of glass materials
	EN3	Direct energy consumption by primary energy source.	●	33	Resource usage management - Energy usage
	EN4	Indirect energy consumption by primary source.	●	33	Resource usage management - Energy usage
	EN5	Energy saved due to conservation and efficiency improvements.	●	33	Efforts to conserve the environment-Installed inverters in major facilities
	EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	●	31	New renewable energy
	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	●	33	Installed waste heat boilers to reduce energy usage, use of circulating facilities to reduce use of water
	EN8	Total water withdrawal by source.	●	33	Enter amount of water used (397,048 ton)
	EN9	Water sources significantly affected by withdrawal of water.	○		
	EN10	Percentage and total volume of water recycled and reused.	①	33	Construct circulating system to cut down on water usage
	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	NA		
	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	NA		

Category	Index NO.	Contents	Level of Application	Page	Note
Environ-ment	EN13	Habitats protected or restored.	NA		
	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	NA		
	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	NA		
	EN16	Total direct and indirect greenhouse gas emissions by weight.	●	34	Display total direct/indirect green-house gas usage for three years from 2011 to 2013
	EN17	Other relevant indirect greenhouse gas emissions by weight.	○		
	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	●	32,33	Amount of greenhouse gas reduced, activities to reduce greenhouse gases
	EN19	Emissions of ozone-depleting substances by weight.	NA		
	EN20	NOx, SOx, and other significant air emissions by type and weight.	●	34	Atmospheric pollutant emissions (SOx, NOx, dust)
	EN21	Total water discharge by quality and destination.	①	32	Waste water emissions
	EN22	Total weight of waste by type and disposal method.	●	32,34	Amount of waste water treated 1,017,705 ton
	EN23	Total number and volume of significant spills.	●	33	No history
	EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	NA		
	EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	○		
	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	●	33	<Efforts to conserve environment among production activities>
	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	○		
	EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	●	33	No violations
	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	●	33	Reduce transportation costs and manage greenhouse gases based on calculations and analyses for efficient assignment of logistics transportation vehicles [Note: selected as outstanding company in the 'emissions trading pilot project in the industrial generator sector' carried out by the Energy Management Corporation]
	EN30	Total environmental protection expenditures and investments by type.	●	34	Environmental protection expenses increased to 4,420 Thousand USD
Labor Performance Index	LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	●	40	Enter by categorizing as hiring, women/birthgiving
	LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	●	40	Enter retirement/quitting rate
	LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	○		
	LA4	Return to work and retention rates after parental leave, by gender.	●	43	25.1%
	LA5	Percentage of employees covered by collective bargaining agreements.	○		
	LA6	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	●	43	2013 Labor Union Status : 410(25%)
	LA7	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	●	42	Achieved sextuple accident-free record
	LA8	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	NA		
	LA9	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	●	42	Health examination for employees (health)
	LA10	Health and safety topics covered in formal agreements with trade unions.	●	41	18 hours per person
	LA11	Average hours of training per year per employee by gender, and by employee category.	①	41	Provide educational support such as career development or matters related to work
	LA12	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	○		
	LA13	Percentage of employees receiving regular performance and career development reviews, by gender.	●	20,40	Governance and employees
	LA14	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	○		
	LA15	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	①	40	100% rate of returning to work after maternity leave
Human Rights Performance Index	HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	●	40	No discrimination based on gender, religion or social status
	HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	○		

Category	Index NO.	Contents	Level of Application	Page	Note
Human Rights Performance Index	HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	●	19	Training to prohibit discrimination against the disabled and to prevent sexual harassment
	HR4	Total number of incidents of discrimination and corrective actions taken.	○		
	HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	○		
	HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	●	40	Prohibition of child labor
	HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	●	40	Prohibition of forced labor
	HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	○		
	HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	NA		
	HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	○		
	HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	○		
Social Performance Index	S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	●	44	Company-wide
	S02	Percentage and total number of business units analyzed for risks related to corruption.	○		
	S03	Percentage of employees trained in organization's anti-corruption policies and procedures.	●	19	Number of participants for ethical education and training
	S04	Actions taken in response to incidents of corruption.	○		
	S05	Public policy positions and participation in public policy development and lobbying.	○		
	S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	NA		
	S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	○		
	S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	○		
	S09	Operations with significant potential or actual negative impacts on local communities.	○		
	S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	○		
Product Performance Index	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	●	38	Product Responsibility : Construct and operate quality management system
	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	●	38	Indicate that there is no history of violating laws pertaining to product supply in quality management
	PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	○		
	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	○		
	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	●	39	Customer Satisfaction Survey → Very satisfied 70.3%
	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	NA		
	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	NA		
	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	NA		
	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	●	38	No history

Patents

Name of Patent	Patent No.	Reg. Date	Remark
Deodorizing method and deodorizing device according to saw-tooth wave corona discharge	0191681	1999-01-26	KC Green Holdings
Electrostatic pesticide distribution device and methods	164678	1998-09-14	KC Green Holdings
Electrostatic filter cloth dust-collection method due to corona discharge and its device	0227127	1999-07-30	KC Green Holdings
Plasma ionization gas generating device using streamer corona discharge	0227128	1999-07-30	KC Green Holdings

Name of Patent	Patent No.	Reg. Date	Remark
Air pollutant treatment method and its device using streamer corona discharge	0228835	1999-08-12	KC Green Holdings
Gas discharge forming device using high voltage impulse	0344988	2002-07-04	KC Green Holdings
Hazardous gas purification device of streamer corona discharge inside the reactor using high voltage impulse power	0381499	2003-04-10	KC Green Holdings
High voltage impulse discharger with three pole electrode characteristics with adjustable electrode	0367785	2002-12-27	KC Green Holdings
Dry type cleaning system and dry type cleaning method of sintering exhaust gas	10-0660234	2006-12-14	KC Green Holdings
Single high voltage recognition method high speed electrostatic dust-collection device and its electric dust-collection method	10-0871601	2008-12-26	KC Green Holdings
Ceiling-attached dust collection system and management method using this	10-0960104	2010-05-19	KC Green Holdings
Single cover structure of dust collector and dust collector equipped with this	987197	2010-10-05	KC Green Holdings
Wet absorption tower with multiple absorption chambers	1185805	2012-09-07	KC Green Holdings
Exhaust gas treating device	1303918	2013-08-29	KC Cottrell
Wet absorption tower with multi-layer spray structure	10-1277569	2013-06-17	KC Cottrell
High fluid speed electric dust collector for stabilization of floating particle movement	10-1270469	2013-05-28	KC Cottrell
Wet absorption tower with multiple reaction tank	10-1349959	2014-01-03	KC Cottrell
Electric dust collector for pure oxygen combustion	12-82791	2013-08-30	KC Cottrell
Combustible gas condensation device with sulfur removal functions	10-1282918	2013-07-01	KC Cottrell
Amalgam electrode, its manufacturing method, and electrical-chemical return method of carbon dioxide using this	-	-	KC Cottrell (Patent pending)
RHDS and VRHDS desulfurizing waste catalyst restoration system and restoration method	-	-	KC Cottrell (Patent pending)
RHDS and VRHDS desulfurizing waste catalyst high temperature continuous spiral elevator roasting system	-	-	KC Cottrell (Patent pending)
Wet desulfurizing device to induce flow of treated gas	-	-	KC Cottrell (Patent pending)
Exhaust gas treatment system that collects moisture from exhaust gas emitted from the desulfurizing device	-	-	KC Cottrell (Patent pending)
Fluidized Bed Carbon Dioxide Scrubber for Pneumatic Conveying System	13/023,569	2011-02-09	NoI-Tec Systems
Pollution Control System with Sorbent Recycling (discontinued due to lack of market demand)	61/551079	2011-10-25	NoI-Tec Systems
Material Delivery System for Sorbent Materials or Powders	61/770,207	2013-03	NoI-Tec Systems
Treating Device by Anaerobic Decomposition of Organic Trash and its Method	0279644	2007-07-06	KC Enviro Services
Waste Gas Purification Bio Filter	0371501	2007-07-06	KC Enviro Services
Rotation Disk Sorting Device for Trash and Earth and Sand Sorting	0279217	2007-07-06	KC Enviro Services
Trash Stabilization Method for Restoration of Landfills	0308814	2007-07-06	KC Enviro Services
Glass Bottle Inspection Device	10-0860495	2008-09-22	KC Glass & Materials
Exhaust Gas Denitrification Device Temperature Raising System for Environmental Pollution Prevention Facilities and Exhaust Gas Treatment System that Applies This	10-1070777	2011-09-29	KC Glass & Materials
Exhaust Gas Treating System	10-1166476	2012-07-11	KC Glass & Materials
Coating Method for Class Container Mold and Surface Coated Mold using This Method	10-1217034	2012-12-24	KC Glass & Materials
Assembly Wall Device Panel	10-0242818-0000	1999-11-13	ClestraHauserman
Connected Vertical Partition System	10-0350353-0000	2002-08-14	ClestraHauserman
Single Block Ceiling	10-0242817-0000	1999-11-13	ClestraHauserman
Assembly-type Cabinet Glass Door formed on Light-weight Partition Panel	10-0174354-0000	1998-11-04	ClestraHauserman
Connective Structure for Partition Panel Construction in Preparation against Earthquakes	10-0174353-0000	1998-11-04	ClestraHauserman
Easy to Dismantle and Assembly Partition Panel and Cabinet System using This Panel	10-0174352-0000	1998-11-04	ClestraHauserman
Plastering Panel System in Interior Wall of Building	10-0129430-0000	1997-11-08	ClestraHauserman
Fire extinguishing device of concentrated air conditioning booth	10-1286188	2013-07-09	ClestraHauserman

Awards and Certifications

Awards in 2013

- Korean Society for Atmospheric Environment, technology award(KC Cottrell)
- International Fellow Award with Bob ISESP(KC Cottrell US)
- ‘Industrial sector emissions trade pilot project’ evaluation excellent company award (KC Glass & Materials)
- Korean Society for Atmospheric Environment, technology award(KC Cottrell)

Certifications

KC Cottrell(including plant)	ISO 9001, ISO 14001, OHSAS 18001, KOSHA 18001 SEL(Special Equipment License for China), NB(The National Board of Boiler & Pressure Vessel Inspectors), NB “R”, ASME(The American Society of Mechanical Engineers) “U”, ASME “U2”, ASME “S”
KC Cottrell China	ISO 9001
KC Cottrell Vietnam	ISO 9001
Lodge Cottrell UK	ISO 14001, ISO 9001, OHSAS 18001
KC Enviro Services	ISO 9001, ISO 14001, OHSAS 18001
KC Landfill Service	ISO 14001
KC Enviro Construction	ISO 9001, ISO 14001
KC Hanmi Environment	ISO 14001, KOSHA 18001
KC EcoEnergy	ISO 14001, Cyclic aggregate quality certification
KC Glass & Materials	ISO 9001, ISO 14001, KOSHA 18001, Excellent recycled and regenerated product GR certifica- tion, green technology certification, KS certification
Jord KC	AS/NZS 1400, AS/NZS ISO 9001, AS/NZS 4801, OHSAS 18001
ClestraHauserman	ISO 9001, ISO 14001, KOSHA 18001
KC Envirotech E&C(Fushun)	ISO 9001, ISO 14001, OHSAS 18001
NWL Pacific	ISO 9001, CLEAN workplace, CE certification

- ISO 9001[quality management system] certification
- ISO 14001[environmental management system] certification
- OHSAS 18001[Health and Safety management system] certification[Korea Foundation for Quality]
- KOSHA 18001[Health and Safety management system] certification[Korea Occupational Health and Safety Agency]
- KSI 7001[green management system] certification[Korea Foundation for Quality]
- AS/NZS 1400[* Australian/New Zealand Standard, Heavy-duty alkaline detergents for ‘in-place’ cleaning in dairy factories]
- AS/NZS 4801[Australia OHSAS 18001 certification]
- * When operating certification system with the international standard of OHSAS 18001, some countries or organizations use the specifications by changing the name of the specification for the convenience of management, etc. (i.e.: Argentina – IRAM 3800, Australia – AS/NZS 4801, etc)

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